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ABSTRACT

A Missouri study was conducted to investigate the reading abilities of the average vocational technical student to determine if this reading ability was commensurate with the material the student was assigned to read, and to compare the effectiveness of the reading ability to success in completing a vocational course of study. In order to secure the data from the area vocational schools of this study, the Nelson-Denny Reading Tests were given, textbooks used in the classes were measured for readability with the Dale-Chall and Fry formulas, the individual instructors were interviewed regarding methods of teaching poor readers, and final grades students made in the courses were obtained. Major conclusions include the following: (1) most students enrolled in vocational technical courses are unable to read to their level of grade attainment; (2) the textbooks students are assigned to read are written on a readability level of from one to seven grades above their reading ability; and (3) teachers are required by necessity to give most instruction on a one-to-one basis with numerous visual aids and demonstrations. Two of the recommendations made include the following: a reading class or reading type of assignment should be provided at every grade level of the school to improve students' reading skills, and publishers should provide more text material written on the reading level of the students that will be reading the books. (Author/JE)

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FINAL REPORT

COMPARISON OF READING READINESS
OF VOCATIONAL-TECHNICAL STUDENTS AND
THE SUCCESS ATTAINED IN THESE COURSES

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A B S T R A C T

The Problem: Reading is basic to all formal educational pursuits. The student's reading ability will constantly affect their success in education and possible their eventual success on the job after school. The problem with which this study is concerned is to investigate the reading abilities of the average vocational technical student and to determine if this reading ability was commensurate with the material the student is assigned to read and to compare the degree of affect his reading ability has on his success in completing his vocational course of study.

Objectives: (1) Determine the average reading level of the students enrolled in selected vocational technical classes offered by the area vocational technical schools of southwest Missouri. (2) Determine the reading level of textbooks and other material assigned to the students to read enrolled in six technologies of these area schools. (3) Determine the extent the individual technology instructors supplement the student's reading assignments with material requiring little or no reading. (4) Determine the level of success the students attained when completing the course in the technologies in which they were enrolled. (5) Determine if there is a significant difference in comparing the ability to read and the level of success the students attained.

Methodology: In order to secure the data for this study each student enrolled and present in six technical areas in three area vocational technical schools were given the Nelson-Denny Reading Test, textbooks used in the classes were measured for readability with the Dale-Chall and Fry formulas, the individual instructors were interviewed relating to methods of teaching poor readers and final grades students made in the courses were secured. Descriptive statistics were used to analyze the data.

Major Conclusions: (1) Most all students enrolled in vocational technical courses are unable to read to their level of grade attainment. (2) The textbooks students are assigned to read are written on a readability level of from one to seven grades above their reading ability. (3) Teachers are required by necessity to give most instruction on a one to one basis with numerous visual aids and demonstrations.

Recommendations: (1) A reading class or reading type of assignment should be provided at every grade level of the school to improve students' reading skills. (2) Publishers should provide more text material written on the reading level of the students that will be reading the books. (3) Publishers and authors of textbooks develop suggested lesson plans that would enable the instructors to better teach vocabulary. (4) Development of diagnostic procedures be encouraged to improve students comprehension. (5) Instructors be encouraged to develop visual aids to help students learn information on technical skills.

TABLE OF CONTENTS

Chapter

I.	INTRODUCTION	1
	Problem	2
	Objectives	3
	Need for the Study	4
	Assumptions of the Study	5
	Limitations of the Study	6
II.	POPULATION AND METHOD	7
	Design and Methodology	7
	Instrumentation	9
	Population	12
III.	FINDINGS	17
	Objective 1	19
	Objective 2	23
	Objective 3	28
	Objective 4	29
	Objective 5	31
IV.	SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	33
	Summary	34
	Conclusions and Recommendations	35
	Recommendation I	36
	Recommendation II	37
	Recommendation III	37
	Recommendation IV	38
	Recommendation V	38
	Recommendation VI	39
	BIBLIOGRAPHY	40
	APPENDIX A	
	Procedure	41
	APPENDIX B	
	Dale-Chall Word List	43
	APPENDIX C	
	Supplementary Tables	44
	APPENDIX D	
	Area and Secondary Schools	45

APPENDIX E	
Final Grades of Students	46

APPENDIX F	
Bibliography of School Textbooks	47

LIST OF TABLES

Table		Page
I.	Number of Students Enrolled by Area Voc-Tech Schools	13
II.	Percent by Age Level, by sex of all Students Enrolled and Tested in all Area Voc-Tech Schools	15
III.	Percent by Grade Level Attained, by sex of all Students Enrolled and Tested from all Area Voc-Tech Schools	16
IV.	The Average Reading Scores by Percentile Rank of Students Tested in Area Voc-Tech Schools of Southwest Missouri	19
V.	Average Reading Scores by Grade Level Ability of Students Tested in Area Voc-Tech Schools of Southwest Missouri	20
VI.	Number of Students Enrolled by Grade Level of Attainment by Technical Area in Area Voc-Tech Schools	21
VII.	Average Reading Scores by Grade Level Ability of Students Enrolled in Tested Area Voc-Tech Schools of Southwest Missouri	22
VIII.	The Determined Reading Level of Books Used in Reference for the Area Voc-Tech Schools by Technical Area	24
IX.	Average Readability Level by Grade Level of Textbooks Used by Technologies	28
X.	Frequency of Final Grades and Percentiles for all Students Enrolled and Tested in the Area Voc-Tech Schools	30

CHAPTER I

THE PROBLEM

INTRODUCTION

A curriculum is identified as those planned and unplanned activities in which a student participates to reach a specific educational goal. A curriculum, for the most part, is made up of planned and organized courses for the teaching and learning of subject matter. Subject matter is conveyed to the student with assistance from the teacher by assignments, demonstrations, discussions, and lectures. But the key to the learning of subject matter can be a handicap to the student in his or her inability to read if the major vehicle through which learning occurs is the textbook. Courses are, more often than not, organized around reading assignments and sometimes individualized assignments. The increased use of individualized instructions is becoming a more important teaching technique, and reading is of primary concern.

Reading is therefore basic to all formal educational processes. Although a student may succeed, to some extent, in a course and be a poor reader, the necessity to read is ever present. All occupational areas and courses of study offered in the several area vocational technical schools of Missouri require that the student read in order to gain the knowledge necessary to successfully complete the course. The ability to read and the level of reading comprehension cannot only affect his or her level of success in the course,

but the level of performance on the job after school is completed.

PROBLEM

For many years, those students with the lowest academic abilities have been placed in practical arts and vocational education courses if they were unable to succeed in other academic curriculums. Their failure to succeed in the liberal arts curriculums was basically caused by their inability to read. This apparent disregard of educational administrators and counselors for the individual student's ability to read when assigned to a vocational curriculum has been a common concern of vocational educators. The slow reader is encouraged to enter a vocational education program while the faster reader is encouraged to enter the college preparatory curriculum. By implication learning by doing does not require an ability to read. The ability or inability to read is not a fair indication of an individual student's intelligence, but the implication tends to remain that if a student does not perform well in the regular academic program, he or she should enter vocational technical courses to finish his education in an occupational educational program. This concept is not necessarily true, and in most cases the reading level of textbooks in which vocational technical students are given assignments require reading skills far higher than the national average of the tested student's reading ability. The problem with which this study is concerned is to investigate the reading abil-

ity of the average vocational technical student and to determine if this reading ability was commensurate with the material the student is assigned to read and to compare the degree of effect his reading ability has on his success in completing his vocational course of study.

OBJECTIVES

The purpose of this study is to identify the reading level at which a student must be able to perform in order to successfully complete a pre-employment vocational education program for occupational entry. The areas specifically studied were agriculture, auto body, auto mechanics, heating and air conditioning, electronics, and the licensed practical nursing program and the students enrolled in these technical areas. The schools selected from which to draw students were the Nevada, Springfield, and West Plains area vocational technical schools.

This study's purpose was to research the objectives as listed:

1. Determine the average reading level of the students enrolled in selected vocational technical classes offered by the area vocational technical schools of southwest Missouri.
2. Determine the reading level of textbooks and other material assigned to the students to read enrolled in six technologies of the area vocational technical schools of southwest Missouri.
3. Determine the extent the individual technology in-

- structors supplement the student's reading assignments with material requiring little or no reading.
4. Determine the level of success the students attained when completing the course in the technologies in which they were enrolled.
 5. Determine if there is a significant difference in comparing the ability to read and the level of success the student attained.

NEED FOR THE STUDY

Specialized reading courses used to increase a student's ability to read have been offered in the public schools of Missouri for many years. However, the level of reading of high school sophomores, juniors, and seniors has not increased appreciably, which causes concern to educators at every level. The State Department of Elementary and Secondary Education offers a variety of services to help local schools further improve their reading programs. With the aid of new federal grants, the Department will expand these services during the coming year (1978) by adding over \$90,000 in "right-to-read" grants to fund several new state-wide efforts to improve reading instruction.

A study by Dasinger (1) indicated that the teachers and counselors should be doing more in providing instruction to improve reading ability and more realistic counseling to students entering vocational education subjects. In Dasinger's study the investigator observed the role of secondary school counselors as perceived by selected reference

groups. A minor part of this study was devoted to guidance counselors' duties which suggest improving the individual student's reading readiness in order that they might succeed more easily in the training required in vocational subjects.

Parents and other groups have placed a stigma on reading preparedness classes that does not encourage students to enter any class that is especially intent on preparing students to improve their reading skills. The problem tends to be in the name of the course, "Remedial Reading", that gives it a negative connotation.

The question is also raised among guidance counselors as to what is or should be their role in recommending classes to any student whose reading ability falls below an acceptable standard.

ASSUMPTIONS OF THE STUDY

The design of this study was based on the major assumption that the students enrolled in the vocational classes participating in the Nelson-Denny Reading Test were sincere in their responses to the test and that they put forth their maximum effort to achieve the highest scores possible. It was further assumed that the students entering federal and state reimbursable occupational educational programs in the schools tested would be similar to the students selecting occupational educational programs in the future or in most other schools in Missouri. The validity of this assumption is supported by a study conducted by Astin (2, p. 51), cit-

ing several studies which show that the characteristics of students in an institution remains stable over a period of years. This is not to preclude that these problems and the demand for these programs will not grow or change in the future.

An additional assumption of the study was that the reading sample, used by the readability formulas, Dale-Chall and Fry reading techniques used to evaluate the reading level of books used by the vocational technical teachers in which student assignments were made, were truly representing the readability of the entire book.

LIMITATIONS OF THE STUDY

Because of the time limitations imposed on the research, the population was limited to only three of eleven area vocational technical schools in southwest Missouri. It is assumed that the three schools tested were representative of the eleven schools in the area and therefore all technical schools of Missouri. The study limited its scope to those technologies that were similar in all three schools. The study was also limited to those students who were present in classes at the time the test was administered.

CHAPTER II

POPULATION AND METHOD

DESIGN AND METHODOLOGY

The principal objectives for the study were to determine the average reading level of the students, the readability level of material assigned to the students to read, the level of success the students attained when completing the course pursued, and to determine if there is a significant difference in comparing the ability to read and the level of success the students attained at the completion of the course.

The selection of research method was influenced by the kind of materials and procedures that were to be dealt with.

Certain procedures require precise experimental control and manipulation; others may be satisfactorily attached by way of naturalistic observation or non-experimental assessment; the overall technique is chosen to best fit the problem under investigation, and the choice of technique can affect the details of design and the operation for measuring the variables. The design of this study is a type of inter-relationships study using a causal-comparative method of descriptive research.

The causal-comparative method is sometimes referred to by sociologists as the ex-post-facto design. In a causal-comparative investigation, or an ex-post-facto-design study, the investigator studies the life situation in which his subjects have experienced that which he wishes to investigate,

or in which the independent variables have already occurred. After studying the likenesses and differences between two situations, or between observations of independent variables, he describes the factors that appear to account for the phenomenon in one instance and its absence in the other.

In this study the researcher intended to study the reading ability of selected students in several area vocational technical schools in southwest Missouri. As indicated in the objectives, the investigator was to identify and to classify the reading ability of selected students enrolled in selected area vocational technical schools, and the required reading level of the text material these students were assigned. To collect the data the investigator traveled to each area vocational technical school and administered the Nelson-Denny Reading Test. Each instructor was interviewed in reference to the amount of audio-visual materials used to supplement the assigned text materials. Also copies of the textbooks used in each area school and course of study were collected and tested for reading level by the Dale-Chall (3) and Fry (4) techniques of readability. Teachers were sent a list of names of students in their classes that were tested and were asked to give their final score for the course the students were taking under their direction.

The information thus gleaned from the students was basically objective quantitative data which are made available in another part of this report.

The analysis of the objective quantitative data used

the descriptive statistic techniques of mean, frequency, and percentages.

INSTRUMENTATION

The Nelson-Denny Reading Test (5) was selected as the standardized reading test to be used in the reading study. Agatha Townsend (6), consultant, Educational Records Bureau, New York, stated in a review of the Nelson-Denny test written in the Buros's Sixth Mental Measurements Yearbook, "The simple structure is well adapted to the survey purposes to which the test has always held. It consists of a long (100-item) vocabulary test and a series of reading passages on which comprehension questions are asked. In both the old and revised editions, the raw score on comprehension is multiplied by two and added to the vocabulary score for a total. This weighting of the comprehension factor is probably justifiable since it brings the two scores fairly closely in line, though the total score for a good reader, or at least one answering most of the questions correctly, will be weighted more heavily with vocabulary."

"The new test also includes a rate score. The manual points out quite correctly that the rate score should be regarded like any other piece of raw data, and interpreted through reference to the percentile tables. It should also be noted that the rate score is based on a testing time of only one minute, although there is considerable evidence to suggest that such a brief sample is not so reliable as rate measurement over a longer interval."

The Townsend quote continues, "Except for the limitations noted about the rate score, the data on reliability for the test indicate that the part scores may be used with considerable confidence is increased by observing that the percentile norms seem to have been carefully constructed and the populations on which they are based carefully described. Standard error of measurement figures are reported in addition to reliability data; this is a valuable and praiseworthy addition to the manual."

The most recent versions Form C and D of the Nelson-Denny Reading Test provide users with a more accurate and useful measure of the reading skills than previously published forms. These forms serve predictive screening and diagnostic purposes. The Nelson-Denny Reading Tests Form C and D used in this study provide a measure of all three major elements of reading ability: vocabulary, comprehension, and reading rate. Each form contains one hundred items to measure vocabulary and thirty-six to measure reading comprehension. The comprehension score is given double weight in arriving at a total score. This total score is the best single index of reading ability obtained through the use of this instrument.

The forms are designed for the use in grades 9 through 16. They are readily administered in a single class period. The normal working time is thirty minutes, plus whatever time is needed to distribute and collect the test materials and to give directions.

Form D answer sheet was used with the Nelson-Denny Reading Test booklet. Each answer sheet was scored by hand. The raw scores were adjusted to percentile rank and the equivalent grade level of reading ability.

The textbooks used by the different teachers were examined to determine the relative difficulty in reading of the printed material and thus their appropriateness for students whose reading grade levels are known. Readability formulas have been proposed and are fairly well accepted by reading specialists as tools for matching reading materials to students. Among the formulas used with secondary schools' materials were the Dale-Chall Readability Formula and the Fry Readability Graph.

The Dale-Chall Formula is based on the assumption that the length of sentences (the number of words they contain and word frequency or familiarity--as determined by word lists) account for the factors that affect difficulty, and the Fry Readability Graph which involves the number of syllables and sentences in a 100-word sample.

The Fry Readability Graph is very simple to use and provides as good an assessment as other formulas.

Perhaps the most that can be said for readability formulas is that they provide an approximate measure of the relative difficulty of sets of reading materials. The grade-placement scores which the formulas yield cannot be taken as absolute since there is enough evidence to suggest that they sometimes overestimate or underestimate the

difficulty as indicated by grade placement. It has been pointed out that the conceptual difficulty and idea organization of materials plus the interest and motivation of readers are ignored by the formulas and that these factors account for some of the variability in the difficulty of materials. John Bormuth (7) suggested that language features other than word and sentence length, influence readability: multiplicity of word meanings, their abstractness, and morphological complexity; and the grammatical complexity of sentences as measured by the number of grammatical facts they contain, the distance between words or phrases and their modifiers, and transformational complexity which refers to the problem of converting a sentence to its kernel sentences.

In the final analysis of these tools researchers have no other in which to turn. Therefore discounting their apparent weaknesses, collectively, the data with these measuring devices, become tools that do indicate some letter of validity of trend and purpose that may be taken as possible outcomes and bases for future planning purposes.

POPULATION

The first task of the analysis was to determine the nature of the population used for the study. Only after identifying the nature of that population, in this case the students enrolled in five similar technologies in three area vocational technological schools, could one understand the character of the data collected. The structure of the study is ex-post-facto in nature and covers the current reading

abilities, as can best be described by the tools used, that were enrolled and present at the time the test was administered in the area schools.

TABLE I
Number of Students Enrolled
by Area Voc-Tech Schools

COURSES	Nevada		Springfield		West Plains		Total	
	NO.	%	NO.	%	NO.	%	NO.	%
AGRI.	26	49%	8	15%	19	36%	53	20%
AUTO BODY	9	25%	14	39%	13	36%	36	13%
AUTO MECHANICS	8	24%	13	38%	13	38%	34	13%
ELECTRONICS	12	32%	14	37%	12	31%	38	14%
HEAT. & AIR COND.	15	56%	12	44%	--	---	27	10%
LPN	30	38%	28	35%	21	27%	79	30%
TOTALS	100	37%	89	34%	78	29%	267	100%

The collected data indicates that 267 students were administered the Nelson-Denny Reading Test (Appendix C, Table I), that could be counted as valid, from 27 sending schools in southwest Missouri: 9 schools sent students to Nevada, 15 schools sent students to Springfield, and 3 sent students to West Plains (Appendix C, Tables II, III, and IV). The sending schools listed in the supplementary tables did not necessarily represent all schools sending students to these area vocational technical schools. The percent of students tested in each area vocational technical school, Nevada, Springfield, and West Plains, as shown in Table I, indicating the number of students enrolled at each area vocational technical school by technology area, 37 percent

were in Nevada, 34 percent were in Springfield, and 29 percent were in West Plains, indicating each school was only a few percentage points as being as near as possible equally represented in the data. The largest group as a technology area of students tested were enrolled in the LPN classes in each school.

When comparing the students of each school by age level and by sex (Table II) enrolled in each technological area, 82 percent were over 16 years old. Fifty-eight percent (of the total population tested) were 16 and 17 years old, and 23 percent were 21 years old or older, most of which were enrolled in the Licensed Practical Nursing program (Appendix C, Table V).

When comparing the grade level obtained by sex enrolled in the tested area vocational technical schools, 83 percent were above the 10th grade. Sixty-two percent were in the 11th and 12th grade, and 21 percent were considered post high school students and enrolled in the LPN classes. The rest of the students compared by grade level were represented in the five other technologies in the study as shown in Table III. The students tested identified by sex were 66 percent male and 34 percent female. Twenty-eight percent of all students tested were females enrolled in the LPN program.

There were no attempts to compare the scores of reading ability and level of success between male and female students.

TABLE II

Percent by Age Level, by sex of all
Students Enrolled and Tested in all Area Voc-Tech Schools

AGE	AGRI.		AUTO BODY		AUTO MECH.		ELECT.		HEAT A/C		LPN		TOTAL		ADDED TOTAL
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
15	7%	.8%	-	-	-	-	-	-	-	-	-	-	7%	.8%	8%
16	8%	2%	5%	-	4%	-	5%	.4%	4%	-	-	-	26%	3%	28%
17	1%	.4%	6%	-	6%	-	7%	-	3%	-	-	-	24%	.4%	25%
18	-	-	2%	-	3%	-	2%	-	1%	-	-	1%	8%	1%	9%
19	-	-	-	-	-	-	-	-	-	.4%	-	3%	-	3%	3%
20	-	-	-	-	-	-	-	-	.4%	-	.4%	1%	.8%	1%	2%
21 and up	.4%	-	-	-	-	-	-	-	-	-	.8%	23%	1%	23%	24%
TOTALED	16%	3.2%	13%	-	13%	-	14%	.4%	8.4%	.4%	1.2%	28%	66.8%	32.2%	99%
AVERAGED	16%	3%	13%	-	13%	-	14%	1%	10%	1%	1%	28%	67%	33%	100%

TABLE III

Percent by Grade Level Obtained, by sex of all
Students Enrolled and Tested from all Area Voc-Tech Schools

GRADE	AGRI.		AUTO BODY		AUTO MECH.		ELECT.		HEAT A/C		LPN		TOTAL		AVERAGE TOTALED
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
10	14%	3%	-	-	-	-	-	-	-	-	-	.4%	14%	3%	17%
11	3%	.7%	9%	-	8%	-	9%	.4%	4%	-	-	-	32%	1%	33%
12	-	-	4%	-	5%	-	5%	-	5%	-	.7%	8%	21%	8%	29%
13 and up	-	-	-	-	-	-	-	-	.4%	.4%	.4%	20%	.7%	20%	21%
TOTALED	17%	3.7%	12%	-	12%	-	14%	.4%	9.4%	.4%	1.1%	28.4%	67.7%	32%	100%
AVERAGED	16%	3%	13%	-	13%	-	14%	1%	10%	1%	1%	28%	67%	33%	100%

CHAPTER III

FINDINGS

This study was concerned with a comparison of reading ability of assigned reading materials and the relationship to success of the students enrolled in six vocational courses studied at area vocational technical schools located in Nevada, Springfield, and West Plains. Each of the three area vocational technical schools were contacted to gain permission to give the Form D of the Nelson-Denny Reading Test to each student presently enrolled in the sophomore agriculture classes and the auto body, auto mechanics, electronics, heating and air conditioning, and licensed practical nursing classes, and a schedule of date and time arranged to give the test. These particular schools were selected because they represented the most diverse socioeconomic populations and topographical areas of the twenty-four counties of southwest Missouri. The six specific types of vocational technical classes were selected because these were the only technologies that were commonly offered in each of the three area vocational technical schools. The exception was heating and air conditioning which was not offered at the West Plains school.

The students enrolled in the Nevada Area Vocational Technical School are typified as from rural communities with flat rolling farm land, large farming operations, and a few small diverse industries. The students enrolled in the

Springfield's Graff Area Vocational Technical School are typified as being from a large urban community with large and diverse industries. The students enrolled in West Plains' South Central Area Vocational Technical School are typified as from rural communities of a hilly terrain with small farms and small diversified industries.

The Nelson-Denny Reading Test Form D was administered to all students present in the class the day the test was scheduled to be given. The abilities of the students taking the test did not necessarily represent the abilities of all the students enrolled in each technology class tested. However, over 90 percent of the students officially enrolled in each class tested were present and it is assumed in this study that the students taking the test were typical of all students currently enrolled in that technology and that each student whose scores were recorded for this report did put forth his best effort in the responses given to each individual question on the test.

In this chapter we are also concerned with how the data collected can answer the research objectives proposed by the study.

In recording the data collected in this study, a number of supplementary tables were developed and required in order to present the data in a statistical form for analysis. In most cases 15 to 20 tables were required to be developed to summarize all data into one table to be used in the text. All supplementary tables take their number from the table presented in the text and can be found in Appendix C

Objective 1: DETERMINE THE AVERAGE READING LEVEL OF THE STUDENTS ENROLLED IN SELECTED VOCATIONAL TECHNICAL CLASSES OFFERED BY THE AREA VOCATIONAL TECHNICAL SCHOOLS OF SOUTHWEST MISSOURI.

The data presented in Table IV identified the averages of all reading scores by percentile level for vocabulary development, comprehension of the material the student reads, and the reading rate of the students by technology area. The data shown in Table IV is recorded by percentile ranks related to the national norms of the Nelson-Denny Reading Test, and indicates that all students, tested in all three vocational technical schools, had an average vocabulary score

TABLE IV

The Average Reading Scores by Percentile Rank
of Students Tested in Area Voc-Tech Schools
of Southwest Missouri

Courses and No.	Vocabulary Comprehension Total			Read. Rate
AGRI. (53)	42	38	39	49
AUTO BODY (36)	39	32	34	25
AUTO MECH. (34)	38	40	39	43
ELECT. (38)	61	46	55	55
HEAT. & AIR COND. (27)	34	35	33	37
LPN (79)	68	36	56	52
TOTALS (267)	50	38	45	45

of 50 percentile, average comprehension score of 38 percentile, and an average reading rate of 45 percentile. When compared to the national norms for general reading ability

these students tested and enrolled in vocational technical courses read below the national average percentile of all students with equal educational backgrounds. The data presented in percentile rank may not be as meaningful as data presented in other forms, so the same data was converted to grade level of reading ability.

When the data from Table IV is converted to reading ability by grade level shown in Table V, the vocabulary scores place all students tested as a group in the 12th grade for vocabulary level of development; 10th grade for comprehension

TABLE V

Average Reading Scores by Grade Level Ability
of Students Tested in Area Voc-Tech Schools
of Southwest Missouri

Courses & No.	Vocabulary	Comprehension	Total	Read. Rate
AGRI. (53)	10.4	9.3	9.5	9.1
AUTO BODY (36)	11.0	9.1	9.5	6.1
AUTO MECH. (34)	10.8	10.7	10.4	8.8
ELECT. (38)	12.8	11.4	12.3	10.6
HEAT. & AIR COND. (27)	10.3	10.0	10.0	7.4
LPN (79)	14.3	11.3	13.5	11.9
TOTALS (267)	12.0	10.4	11.2	9.5

level of material they read; and in the 9.5 grade level for reading rate. When these students' scores are examined as a group by individual technology for vocabulary development, the students tested enrolled in the auto body, auto mechanics, and heating and air conditioning classes showed grade

levels of reading ability of less than 40 percentile or the 9th grade level of reading ability. When comparing the data shown in Table V with the data shown in Table VI (grade level of attainment of all students tested by technology), the scores of all technological students tested matched with the national norms for the Nelson-Denny Reading Test, the majority of the technology students had a vocabulary development of from one to four grade levels of reading ability below their grade level of attainment. The comprehension scores for the majority of the technological students tested were found to be from one to five grade levels of reading ability below their grade

TABLE VI

Number of Students Enrolled by Grade Level of Attainment by Technical Area in Area Voc-Tech Schools

Technical Area	Grade Level of Attainment				Total
	10	11	12	Above	
AGRI.	44	9	--	--	53
AUTO BODY	--	23	13	--	36
AUTO MECH.	--	20	14	--	34
ELECT.	--	24	14	--	38
HEAT. & AIR COND.	--	12	13	2	27
LPN	1*	--	24	54	79
TOTALS	45	88	78	56	267

*Highest Grade Level Attained.

levels of attainment, and the reading rate scores for the majority of the technological students tested were found to be from one to seven grade levels of reading ability below their grade levels of attainment.

When the data is analyzed as to individual technologies and by area vocational technical school (see Tables VI, VII, Appendix C) and presented by groups of students, the average grade level of reading ability of vocabulary development, comprehension of what the student reads, and by reading rate scores the students show a varied range of reading ability from technology to technology and from school to school, but the data does not indicate a specific pattern for analysis by statistical methods used in this study other than that all scores in all technologies of reading levels by grade level of reading ability is lower than grade level of attainment.

Table VI presents data giving average reading scores by grade level ability in grouped form of all students tested, indicated by the area vocational technical school in which they were enrolled. The data presented here indicates

TABLE VII

Average Reading Scores by Grade Level Ability
of Students Enrolled in Tested Area Voc-Tech Schools
of Southwest Missouri

School	No.	Vocab.	Compr.	Total	Read. Rate
NEVADA	(100)	11.6	10.1	11.0	9.3
SPRINGFIELD	(89)	11.2	10.1	10.6	10.4
WEST PLAINS	(78)	10.8	10.6	10.7	7.5
TOTALS	(267)	11.2	10.2	10.8	9.1

the reading rate to be lower for those students enrolled at the Nevada and West Plains schools than in Springfield. The West Plains students had the lowest reading rate of 7.5 grade

level of reading ability, and the Nevada school with the lowest vocabulary grade level of reading ability, and the lowest comprehension grade level of reading ability.

When comparing the data shown in Table VI with the data shown in Table VII, all students tested were in the tenth grade or a higher grade, but when the students are shown in grouped data, few were shown to be able to read on a level in which they had attained, and few were shown to be able to read on a level in which the text materials were shown to be written (see Table VIII).

Objective 2: DETERMINE THE READING LEVEL OF TEXTBOOKS AND OTHER MATERIAL ASSIGNED TO THE STUDENTS TO READ ENROLLED IN SIX TECHNOLOGIES OF THE AREA VOCATIONAL TECHNICAL SCHOOLS OF SOUTHWEST MISSOURI.

Samples of textbooks and assigned reading materials were collected from each technology instructor and were measured as to reading level by the Dale-Chall and the Fry Readability formulas. A complete bibliography can be found in Appendix F. It was found that the technology class of one vocational technical school generally used the same publisher's textbooks used in the other vocational technical schools with comparable edition dates. A list of text and assigned materials used by the various technology instructors and by schools are listed in Table VIII. Also indicated in the table is the measured reading level of each text and other assigned materials used by the various technology instructors. As shown in Table VIII, the reading level of each text is measured

TABLE VIII

The Determined Reading Level of Books Used in Reference
For the Area Voc-Tech Schools
by Technical Area

	DALE-CHALL	FRY	NEVADA SCHOOL	SPRINGFIELD SCHOOL	WEST PLAINS SCHOOL
<u>AGRICULTURE</u>					
Aid to Planning (workbook)					+
An Introduction to Agricultural Business and Industry	13-15	College	+		
Beef Production	11-12	10	+		
Crop Production	11-12	College	+	+	+
Evaluating Missouri Soils	13-15	9	+	+	+
Farming Programs for Students in Vocational Agriculture	7-8	7	+		
Profitable Soil Management	9-10	10	+	+	+
Shopwork on the Farm	7-8	7			+
Supervised Occupational Experience Program	16	College	+		
Swine Production	9-10	7	+		
The Oxy-Acetylene Handbook	13-15	12	+		
<u>AUTO BODY</u>					
Automobile Sheet Metal Repair	11-12	11	+	+	
Automotive Collision Work	11-12	9	+	+	
1967 Oldsmobile Chassis Service Manual	11-12	College	+		+
Student Guide for Automotive Collision Work	11-12	College	+		
The Auto Book	7	7	+	+	+
The Auto Shop Workbook (workbook)					
The Principles of Auto Body Repairing and Repainting	9-10	12	+		
<u>AUTO MECHANICS</u>					
Automechanics	13-15	12	+	+	
Automotive Mechanics	11-12	10	+	+	+
Motor Auto Repair Manual	11-12	8	+	+	+
<u>ELECTRONICS</u>					
A C Electronics	13-15	College	+		+
Basic Concepts and D C Circuits	11-12	11		+	+
D C Electronics	13-15	College	+		
Electronic and Electrical Fundamentals, Volume I	11-12	9		+	+
Electronic and Electrical Fundamentals, Supplement	(workbook)			+	+
Semj-Conductor Devices	13-15	College	+		

TABLE VIII

The Determined Reading Level of Books Used in Reference
For the Area Voc-Tech Schools
by Technical Area

	DALE-CHALL	FRY	NEVADA SCHOOL	SPRINGFIELD SCHOOL	WEST PLAINS SCHOOL
<u>HEATING AND AIR CONDITIONING</u>					
Electronic Controls for Refrigeration and Air Conditioning	11-12	College	+	+	
Modern Refrigeration and Air Conditioning (workbook)	11-12	invalid	+	+	
<u>LPN</u>					
Basic Pharmacology for Nurses	13-15	College		+	+
Essentials of Nursing	13-15	12	+		+
Textbook of Basic Nursing	13-15	11	+	+	+
Total Patient Care	11-12	12		+	

with the Dale-Chall and the Fry formulas and is identified as generally being on the 11th and 12th grade reading level or higher. This data indicates that students using these books will probably have trouble reading the books in which lesson assignments are made if they do not read on the level indicated.

In those circumstances where there is a difference in textbook readability, as identified between the Dale-Chall and the Fry formulas, the content of the textbooks must be examined and evaluated by comparing the techniques of the two formulas used to determine the readability levels.

When utilizing the Dale-Chall formula, the procedure requires comparing the length of sentence with the number of words which are difficult or unfamiliar. Unfamiliar words are considered as those words appearing in the textbook which are not found on the Dale list of 3,000 familiar words (Appendix B). Thus, any word which may be of a technical nature used specifically as a part of the course of study in a vocational or technical program would be most often considered as unfamiliar in determining textbook readability since those technical terms would not likely be found on the Dale list of 3,000 familiar or general high frequency words.

The Fry Readability formula, however, does not incorporate unfamiliar words as a basis to determine difficulty. It used, instead, the total number of syllables in a passage of 100 words. Thus, the more syllables - theo-

retically - the more difficult are the words used in the passage.

The number of sentences are counted as a factor in the Fry formula, as well as in the Dale-Chall Readability formula. Any large differences obtained between the two formulas, therefore, may well be a result of the techniques used to determine difficulty of the textbook (the total number of syllables or number of words considered unfamiliar). In reality, this difference which may occur between the Fry and the Dale-Chall Readability levels on the same textbook passages may well be one of the most important findings of this study. This difference should clearly demonstrate to the teacher in a specialized vocational area (as well as any other specialized area) the tremendous need to teach, as a part of each readiness procedure, those technical terms which are crucial to understand and comprehend the specialized, technical material in those textbooks. Thus, textbook material identified as far too difficult for a particular student by the Dale-Chall formula may well be within his or her instructional level if the specific vocabulary unique to a technological study and crucial to understanding and comprehension were presented and taught through a planned readiness program.

The data presented in Table IX lists the reading level of the textbook as a group in which students are assigned reading. Although the Fry formula of readability scores tend to be lower, in some instances, than the Dale-Chall

scores, those scores taken from each formula are still from

TABLE IX

Average Readability Level by Grade Level
of Textbooks Used by Technologies

TECHNOLOGIES	NEVADA		SPRINGFIELD		WEST PLAINS	
	Dale- Chall	Fry	Dale- Chall	Fry	Dale- Chall	Fry
AGRI.	10-16	10	11-13	10.7	10	9.7
AUTO BODY	10-12	10.8	9.7-12	9	9-12	10
AUTO MECH.	11-13	10	11.7-13	10	11-12	9
ELECT.	13-15	13	11-13	10	11.7-13	11
HEAT. & AIR COND.	11-12	13	11-12	13	-----	---
LPN	13-15	11.3	12-15	11.3	13-15	11.3

three to six grades higher than the average reading ability of the students in any of the technologies tested. If the student with lower reading ability than the text material assigned is to succeed without interminable time spent studying the material, the instructor must supplement the material with demonstrations and lectures enriched with visual aids.

Objective 3: DETERMINE THE EXTENT THE INDIVIDUAL TECHNOLOGY INSTRUCTORS SUPPLEMENT THE STUDENTS' READING ASSIGNMENTS WITH MATERIAL REQUIRING LITTLE OR NO READING.

Each technology instructor of the classes tested in the three area vocational technical schools was interviewed by the researcher to identify the amount of class time spent in the classroom and the amount of time spent in the laboratory, and of the time spent in the classroom, what proportions of time was devoted to reading, lectures, demonstrations, and other pursuits. Because the technologies

differ in types of activities and amounts of knowledge needed at various stages of attainment throughout the entire course, the amount of classroom time varied from technology to technology. However, in the final analysis of all the information obtained from the instructors there seems to be a pattern developing of times in which it was necessary for the students to gain some insight of materials, processes, and related theories of operation and procedures in order that they could continue developing their laboratory skills with intelligence and insight. During the classroom periods the instructors tended to divide the work into one-third time supervised reading and study and two-thirds time presentations by the instructor. Most instructors varied the amount of time spent using visual aids of overhead projector transparencies, film strips, slides, and movies with abilities of the various classes. However, they generally felt that from 40 percent to 60 percent of the related information needed to supplement the laboratory skills was presented with some kind of visual aids. It was the consensus of the instructor that the visual aids were necessary to supplement the reading assignments because the students had trouble understanding the materials they were assigned to read from the assigned textbook and other supplementary reading material.

Objective 4: DETERMINE THE LEVEL OF SUCCESS THE STUDENTS ATTAINED WHEN COMPLETING THE COURSE IN THE TECHNOLOGIES IN WHICH THEY WERE ENROLLED.

In the process of developing this study the fourth objective was concerned with the level of success the students attained with their abilities or inabilities with vocabulary, comprehension, and reading rates. To collect this data each technology instructor whose students were tested was sent a letter, a list of the names of their students who completed the Nelson-Denny Form D Reading Test, and a return addressed envelope in order that the grades could be recorded and returned to the researcher. Appendix E contains these students identified by number, by technology, by the area school, and by corresponding final grades for their course.

The grouped scores of students' final grades are shown in Table X. The data indicates that only 9 percent of all

TABLE X

Frequency of Final Grades and Percentiles for all
Students Enrolled and Tested in
the Area Voc-Tech Schools

Final Grade	Grade Levels of Attainment									
	10		11		12		Above		Total	
A	3	6%	9	19%	16	33%	20	42%	48	18%
B	16	15%	40	37%	22	20%	31	28%	109	41%
C	16	19%	35	41%	13	15%	22	26%	86	32%
D	7	44%	3	19%	1	6%	5	31%	16	6%
*Drop	2	22%	1	11%	4	44%	1	11%	8	3%
TOTALS	44	16%	88	33%	56	21%	79	30%	267	100%

*Drops in some cases may have been F's.

students tested made less than a "C" grade for the course in which they were enrolled, 32 percent made a "C" as a final grade, and 41 percent made a "B" as a final grade. When

considering the level on which these students tend to read the text material assigned to gain the knowledge needed with the skills required for each technology, the instructors must supplement the assigned reading material with large amounts of visual aids, personal instructions and great blocks of laboratory time in order for the students to function at an above average level.

Objective 5: DETERMINE IF THERE IS A SIGNIFICANT DIFFERENCE IN COMPARING THE ABILITY TO READ AND THE LEVEL OF SUCCESS THE STUDENTS ATTAINED.

In the analysis of the data presented in Table V, giving the average reading scores by grade level of ability and comparing it with the data in Table VIII, giving the reading level of text material, the ability of the students to read from technological area to technological area is less than the reading level required of the text material in which the student is assigned. The data in Table V compared with Table VI, giving the students tested grade level of attainment, also indicates that those vocational technical students could not read at their grade level of their attainment. However, when these students completed the course work and a final grade was rendered (Table X), 59 percent of the students tested received an "A" or "B" grade for the performance in their class work, with 32 percent with a "C" grade. The majority of students obtained a superior grade for the class work even though they would have trouble reading the material they are assigned to read and supposedly their

primary source of technical information needed to succeed
in the laboratory.

CHAPTER IV

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The principal objectives for the study were to determine the average reading level of the students enrolled in six technological areas of three area vocational technical schools located in southwest Missouri, the readability level of the textbooks and other materials assigned to the students to read, the level of success the students attained when completing the course in which they were enrolled, and to identify if there is a significant difference in comparing the ability to read and the level of success the student attained at the completion of the course. The students were first tested for reading ability with the Nelson-Denny Reading Test Form D. The instructors of the different technologies were interviewed as to the textbooks and other materials the students were assigned to read to gain the knowledge needed to develop the skills learned in the laboratory, and a copy of each type of material of which reading assignments were made was collected to test readability level with the Dale-Chall formula and the Fry formula for readability. The instructors were also asked to give information on the amount of time that was spent perfecting skills in the laboratory, and the amount of time spent in the classes in discussion of materials the students were assigned to read, in lectures, and in demonstrations on the information the students were required to know. The instructors were further asked to identify, of the time spent in the classroom, how much time

was spent in lecture, demonstrations and discussions, and of that time, how much of these teaching techniques was supplemented with visual aid of various types.

The test answer sheets and assigned reading materials were then graded and evaluated for information to be used in the analysis of the data in order to determine if the objectives proposed in the study could be completed. The last bit of information required for the study's objectives was a final grade for the course for each student completing a valid reading test form. To gain this data a letter of directions, a list of students, and a return addressed envelope was sent to each technology instructor in the three area vocational technical schools in southwest Missouri used in the study.

SUMMARY

In the analysis of the data of the study's objectives the information gleaned indicated that most all of the students studied did not read on a level that was favorable with their grade level of attainment. In vocabulary development the students measured from one to four grade levels below their grade level of attainment, their comprehension of the material they read was from one to seven grade levels below their grade level of attainment, and for reading rate the students measured from one to five grade levels below their grade level of attainment.

When textbooks and other assigned reading materials were measured for readability levels it was found that all

material in which reading assignments were made were measured at or about all students' grade level of attainment. With the high readability level of the assigned reading materials and the low reading ability of the students, it was doubtful if most students enrolled in the technologies included in this study could successfully complete the course of study they were pursuing without great amounts of time spent by the instructor in individualized instruction and demonstrations supplemented with appropriate visual aids.

The different technology instructors were interviewed to determine how much time was actually spent in the classroom and with individualized instructions, demonstrations, and visual aid material. Although the amount of time spent in the classroom varied from one type of technology to another, the amount of time spent using visual aids and demonstrations took from 40 to 60 percent of the classroom time. The amount of visual aids and demonstrations varied with the abilities of the class to use lecture notes and understand the content of assigned reading materials.

When the data relating to final grades the students received for the courses in which they were enrolled were analyzed, it was found that 59 percent of the students included in the study received an "A" or "B" grade for the course, and 9 percent made below a "C" grade or actually failed the course.

CONCLUSIONS AND RECOMMENDATIONS

In the summary of data collected and presented in

this study, the researcher has tried to point out the most obvious facts that tend to be present in the data. An interested observer could no doubt find many more points of interest that were not brought out in this study. However, certain conclusions may be obvious that should be considered and recommendations should be suggested.

Recommendation I:

One obvious conclusion is that most students enrolled in area vocational technical schools do not read on a level that would enable them to gain the most from the text materials that are assigned to read without supplementary help from the instructor other than lectures and laboratory assignments. The researcher would make two recommendations on this point:

- (1) All students be encouraged to develop their reading skills at an early age and grade level. The most advantageous time is probably in the elementary grades, but all students need to be encouraged at every grade level and age.
 - (a) Reading teachers and reading specialists with reading diagnostic abilities should be provided at every grade level of the public school.
 - (b) A reading class or reading type of assignment should be provided at every grade level of the school to improve students' reading skills.

- (c) Teachers of any class at every grade level should concern themselves with improving the reading skills of every student enrolled in their classes.
- (d) Teachers should be given an opportunity to take classes in techniques of teaching reading as a part of their professional improvement program.

Recommendation II:

In using the Dale-Chall formula and the Fry formula to measure the readability of textbooks and supplementary material technology students are required to read, it was found that most all of the textbooks measure at or about the reading ability of the students; it is therefore recommended that:

- (1) Publishers should provide more text material written on the reading level of the students that will be reading the books. Some publishers and in certain fields are now turning out like editions of the same book but at different readability levels.
- (2) Technology instructors be very careful in the selection of the textbooks they choose to be used in their courses and always measure the books' readability level, as well as the reading ability of the students enrolled in their classes.

Recommendation III:

One area of reading ability dealt with vocabulary. Every technological type of classes has terms particularly

related to its field; it is therefore recommended that:

- (1) Teachers of technologies concentrate on the vocabulary specifically related to their field.
- (2) Publishers and authors of textbooks develop suggested lesson plans that would enable the instructor to better teach vocabulary.

Recommendation IV:

The level of comprehension was measured in the reading test given, and it was found that students tested made their poorest grade in this area. It is therefore recommended that:

- (1) Reading teachers and reading classes direct specific effort in this area of the student comprehension of the material in which they read.
- (2) A proposal be developed and research be conducted that would encourage the development of diagnostic procedures to improve students' comprehension levels of the materials they read.
- (3) A research be considered that would eventually be concerned with the development of a standardized reading test that would be more appropriate for vocational technical students than the present published standardized reading tests now do.

Recommendation V:

Visual aids of most every type were used by some of the technology teachers to supplement their lectures and classroom activities. Therefore, it is recommended that:

- (1) The instructors of the various technologies be encouraged by released time, equipment and/or materials to develop the visual aids that would most advantageously enhance the abilities of the students to learn the information related to the skills they develop in the technology laboratory or shop.

Recommendation VI:

This study was developed around specific objectives which implied success on the job after graduation based on the grades the student received when the course was completed but did not include a follow-up study on the student as to his or her success on the job after completing training. Therefore, it is recommended that:

- (1) A proposal be developed and a specific follow-up study be conducted to measure the validity of the grade received in a technology as a prediction of job success and the probability of staying in that technological area for any length of time after graduation.

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APPENDIX A

PROCEDURE

The purpose of this study is to identify the reading level at which a student must be able to perform in order to successfully complete a pre-employment vocational education program for occupational entry. The areas specifically studied were agriculture, auto body, auto mechanics, heating and air-conditioning, electronics, and the licensed practical nursing program and the students enrolled in these technical areas. The schools from which to draw students were in Nevada, Springfield, and West Plains area vocational-technical schools.

The data was collected from the study by going directly to students enrolled in these classes.

The chief administrator of each designated area vocational-technological school was contacted and permission was granted and an appointment was made to administer the test. During the administration of the test the individual teacher of each technology was interviewed to determine which textbook was assigned for the student to read and the amount of time spent in class to supplement the laboratory activities, and the amount of class time that was spent using audio visual materials to supplement the reading assignment.

Data from all the schools and their technologies in which students were tested were considered most desirable for effective data evaluation. In some few cases it was

evident to the test administrator that some students were unable to read the test at an effective level to give a realistic measurable reading score. These tests were marked VOID at the time the student turned in the test answer sheet and were not considered in any of the data presented in this study.

A letter was composed and sent to each teacher with a list of names of students who had taken the test that turned in valid answer sheets along with a self-addressed stamped envelope for the teacher to record the individual student's grades that they received at the completion of the technology course in which they were enrolled.

The Nelson-Denny Reading Test answer sheets were scored, the textbooks and assigned reading materials were evaluated with the Dale-Chall and Fry Readability formulas, and an analysis was made of all the collected data to complete the report.



Department of Industrial Education

SOUTHWEST MISSOURI STATE UNIVERSITY SPRINGFIELD, MISSOURI 65802 (417) 831-1561

May 4, 1978

Dear Mrs. Shirley:

I want to thank you for your consideration and help in the collection of the data for the reading tests of the research project that I am currently conducting. It may seem that these interruptions to your class are of little importance in the day-to-day teaching process, but some real values to education in the future can be drawn from this type of research.

The next stage of the research requires a comparison of reading ability of the individual student to their success in the vocational subject they were taking at the time of the reading test. Therefore, I need one more bit of help from you. Enclosed you will find a list of the students who took the Standardized Reading Test and I will need a final grade on each student.

Thank you again for your help.

Sincerely,

A handwritten signature in dark ink, appearing to read "E. Sherrell", is written over the typed name.

Eugene G. Sherrell, Ed. D.
Professor of Industrial Education
Southwest Missouri State University

mse
Enclosure

APPENDIX B

DALE-CHALL FAMILIAR WORDS

The Dale-Chall formula for reading ability uses a list of familiar words that students of specific levels would know or would not have trouble in identifying in reading text including these words.

DALE LIST OF 3000 FAMILIAR WORDS

able	amount	awful(ly)	became	biting
aboard	an	awhile	because	bitter
about	and	ax	become	black
above	angel	baa	becoming	blackberry
absent	anger/angry	babe	bed	blackbird
accept	animal	baby(ies)	bedbug	blackboard
accident	another	back	bedroom	blackness
account	answer	background	bedspread	blacksmith
acne(ing)	ant	backward(s)	bedtime	blame
acorn	any	bacon	bee	blank
acre	anybody	bad(ly)	beech	blanket
across	anyhow	badge	beef	blast
act(s)	anyone	bag	beefsteak	blaze
add	anything	bake(r)	beehive	bleed
address	anyway	baking	been	bless
adventure	anywhere	bakery	beer	blessing
afar	apart	ball	beet	blew
afraid	apartment	balloon	before	blind(s)
after	ape	banana	beg	blindfold
afternoon	apiece	band	began	block
afterward(s)	appear	bandage	beggar	blood
again	apple	bang	begged	bloom
against	April	banjo	begin	blossom
age	apron	bank(er)	beginning	blot
aged	are	bar	begun	blow
ago	aren't	barber	behave	blue
agree	arise	bare(ly)	behind	blueberry
	arithmetic	barefoot	believe	bluebird
	arm	bark	bell	bluejay
	armful	barn	belong	blush
	army	barrel	below	beard
ahead	arose	base	belt	boast
aid	around	baseball	beneath	boat
aim	arrange	basement	bench	bob
air	arrive(d)	basket	bend	bobwhite
airfield	arrow	bat	bent	body(ies)
airport	art	batch	berry(ies)	boil(er)
airplane	artist	bath	besides(s)	bold
airship	as	bathe	best	bone
airy	ash(es)	bathing	bet	bonnet
alarm	aside	bathroom	better	boo
alike	ask	bathtub	between	book
alive	asleep	battle	bib	bookcase
all	at	battleship	Bible	bookkeeper
alley	ate	bay	bicycle	boom
alligator	attack	be(ing)	bid	boot
allow	attend	beach	big(ger)	born
almost	attention	bead	bill	borrow
alone	August	beam	billboard	boss
along	aunt	bean	bin	both
around	author	boar	bind	bother
aready	auto	beard	bird	bottle
also	automobile	beast	birth	bottom
always	autumn	beat(ing)	birthday	bought
am	avenue	beautiful	biscuit	bounce
America	awake(n)	beautify	bit	bow
and		beauty	bite	bowl
any				

Daie List of Familiar Words Continued

bow-wow	bow	carload	children	coconut
box(es)	box	carpenter	chill(y)	cocoon
boxcar	box	carpet	chimney	cod
boxer	boxer	carriage	chin	codfish
boy	business	carrott	china	cofee
boyhood	busy	carry	chip	coffeepot
bracelet	but	cart	chipmunk	coin
brain	butcher	carve	chocolate	cold
brake	but	case	choice	collar
bran	but	cash	choose	college
branch	buttermilk	cashier	chop	color(ed)
brass	buttercup	cat	cnose(n)	column
brave	buttermilk	catbird	christen	como
bread	butter	catch	Christmas	come
break	butter	catcher	church	comfort
breakfast	butter	caterpillar	churn	comic
breast	buzz	catfish	cigarette	coming
breath	by	catsup	circle	company
breathe	bye	cattle	circus	compare
breeze	cat	caught	citizen	conductor
brick	cabbage	cause	city	cone
bride	can	cave	clang	connect
bridge	canal	ceiling	clap	coo
bright	can	cell	class	cook(ed)
brightness	can	cellar	classmate	cook(ing)
bring	can	cent	classroom	cooky(ie)(s)
broad	calendar	center	claw	cool(er)
broadcast	can	cereal	clay	coop
broke(n)	can	certain(ly)	clean(er)	copper
brook	can	chain	clear	copy
broom	can	chair	clerk	cord
brother	can	chalk	clever	cork
brought	can	champion	click	corn
brown	can	chance	cliff	corner
brush	can	change	climb	correct
bubble	can	chap	clip	cost
bucket	can	charge	cloak	cot
buckle	can	charm	clock	cottage
bad	can	chart	close	cotton
buffalo	can	chase	closet	couch
bug	can	chatter	cloth	cough
buggy	can	cheap	clothes	could
build	can	cheat	clothing	couldn't
building	can	check	cloud(y)	count
built	can	checkers	clover	counter
bulb	can	cheek	clown	country
bull	can	cheer	club	county
bullet	can	cheese	cluck	course
bum	can	cherry	clump	court
bumblebee	can	chest	coach	cousin
bump	can	chew	coal	cover
bun	can	chick	coast	cow
bunch	can	chicken	coat	coward(ly)
bundle	can	chief	cob	cowboy
bunny	can	child	cobbler	cozy
burn	can	childhood	cocoa	crab

Dale List of Familiar Words Continued .

crack	dare	dislike	due	evening
cracker	dark(ness)	dismiss	dug	ever
cradle	darling	ditch	dull	every
cramps	darn	dive	dumb	everybody
cranberry	dart	diver	dump	everyday
crank(y)	dash	divide	during	everyone
crash	date	do	dust(y)	everything
crawl	daughter	dock	duty	everywhere
crazy	dawn	doctor	dwarf	evil
cream(y)	day	does	dwelt	exact
creek	daybreak	doesn't	dwelt	except
crept	dead	dog	dying	exchange
cried	deaf	doll	each	excited
croak	deal	dollar	eager	exciting
crook(ed)	dear	dolly	eagle	excuse
crop	death	done	ear	exit
cross(ing)	December	donkey	early	expect
cross-eyed	decide	don't	earn	explain
crow	deck	door	earth	extra
crowd(ed)	deck	doorbell	east(ern)	eye
crown	deed	doorknob	easy	eyebrow
cruel	deep	doorstep	eat(en)	fable
crumb	deer	cope	edge	face
crumble	defeat	cot	egg	facing
crush	defend	double	eh	fact
crust	defense	tough	eight	factory
cry(ies)	delight	dove	eighteen	fail
cub	den	drown	eighth	faint
cuff	dentist	downstairs	eighty	fair
cup	depend	downtown	either	fairy
cupboard	deposit	dozen	elbow	faith
cupful	describe	drag	elder	fake
cure	desert	drain	eldest	fall
curl(y)	deserve	drank	electric	false
curtain	desire	draw(er)	electricity	family
curve	desk	draw(ing)	elephant	fan
cushion	destroy	dream	eleven	fancy
custard	devil	dress	elf	far
customer	dew	dresser	elm	faraway
cut	diamond	dressmaker	else	fare
cute	did	drew	elsewhere	farmer
cutting	didn't	dried	empty	farm(ing)
dab	die(d),(s)	drift	end(ing)	far-off
dad	difference	grill	enemy	farther
daddy	different	drink	engine	fashion
daily	dig	drip	engineer	fast
dairy	dine	drive(n)	English	fasten
daisy	dine	driver	enjoy	fat
dam	dine-dong	drop	enough	father
damage	dinner	drove	enter	fault
dame	dip	drown	envelope	favor
damp	direct	drowsy	equal	favorite
dance(r)	direction	drug	erase(r)	fear
dancing	dirt(y)	drum	errand	feast
dandy	discover	drunk	escape	feather
danger(ous)	disc	dry	eve	February
		duck	even	fed

feed	floor	frown	gold(en)	gun
feel	flop	froze	goldfish	gunpowder
feet	flour	fruit	golf	guy
fell	flow	fry	gone	ha
fellow	flower(y)	fudge	good(s)	habit
felt	flutter	fuel	good-by(bye)	had
fence	fly	full(y)	good-looking	hadn't
fever	foam	fun	goodness	hail
few	fog	funny	goody	hair
fib	fuggy	fur	goose	haircut
fiddle	fold	furniture	gooseberry	hairpin
field	folks	further	got	half
fife	follow(ing)	fuzzy	govern	hall
fifteen	fond	gain	government	halt
fifth	food	gallon	gown	ham
fifty	fool	gallop	grab	hammer
fig	foolish	game	gracious	hand
fight	foot	gang	grade	handful
figure	football	garage	grain	handle
file	footprint	garbage	grand	handwriting
fill	for	gas	grandchild	hang
film	forehead	gasoline	grandchildren	hankerchief
finally	forest	gate	granddaughter	happen
find	forget	gather	grandfather	happily
fine	forgive	gave	grandma	happiness
finger	forgot(ten)	gay	grandmother	happy
finish	fork	gear	grandpa	harbor
fire	form	geese	grandson	hard
firearm	fort	general	grandstand	hardly
firecracker	forth	gentle	grape(s)	hardship
fireplace	fortune	gentleman	grapefruit	hardware
fireworks	forty	gentlemen	grass	hare
firing	forward	geography	grasshopper	hark
first	fought	get	grateful	harm
fish	found	getting	grave	harness
fisherman	fountain	giant	gravel	harp
fist	four	gift	graveyard	harvest
fit(s)	fourteen	gingerbread	gravy	has
five	fourth	girl	gray	hasn't
fix	fox	give(n)	graze	haste(n)
flag	frame	giving	grease	hasty
flake	free	glad(ly)	great	hat
flame	freedom	glance	green	hatch
flap	freeze	glass(es)	greet	hatchet
flash	freight	gleam	grew	hate
flashlight	French	glide	grind	haul
flat	fresh	glory	groan	have
flea	fret	glove	grocery	haven't
flesh	Friday	glow	ground	having
flow	fried	glue	group	hawk
flies	friend(ly)	going	grove	hay
flight	friendship	goes	grow	hayfield
flip	frighten	goal	guard	haystack
flip-flop	frog	goat	guess	he
float	from	gobble	guest	head
flock	front	God (g)	guide	headache
flood	frost	goat	gulf	heal
				health(y)

heap	home	ideal	judge	late
hear(ing)	homely	if	jug	laugh
heard	homesick	ill	juice	laundry
heart	honest	I'll	juicy	law
heat(er)	honey	I'm	July	lawn
heaven	honeybee	important	jump	lawyer
heavy	honeymoon	impossible	June	lay
he'd	honk	improve	junior	lazy
heel	honor	in	junk	lead
height	hood	inch(es)	just	leader
held	hoof	income	keen	leaf
hell	hook	indeed	keep	leak
he'll	hoop	Indian	kept	lean
hello	hop	indoors	kettle	leap
helmet	hope(ful)		key	learn(ed)
help(er)	hopeless	inn	kick	least
helpful	horn	insect	kid	leather
ham	horse	inside	kill(ed)	leave
hen	horseback	instant	kind(ly)	led
henhouse	horseshow	instead	kindness	left
her(s)	hose	insult	king	leg
herd	hospital	intend	kingdom	lemon
here	host	interested	kiss	lemonade
here's	hot	interesting	kitchen	lend
hero	hotel	into	kite	length
herself	hound	invite	kitten	less
he's	hour	iron	kitty	lesson
hey	house	is	knee	let
hickory	housetop	island	kneel	let's
hid	housewife	isn't	knew	better
hidden	housework	it	knife	letting
hide	how	its	knit	lettuce
high	however	it's	knives	level
highway	howl	itself	knop	liberty
hill	hug	I've	knock	library
hillside	huge	ivory	knot	lice
hilltop	hum	ivy	know	lick
hilly	humble	jacket	known	lid
him	hump	jacks	lace	lie
himself	hundred	jail	lad	life
hind	hung	jam	ladder	lift
hint	hunger	January	ladies	light(ness)
hip	hungry	jar	lady	lightning
hire	hunk	jaw	laid	like
his	hunt(er)	jay	lake	likely
hiss	hurrah	jelly	lamb	living
history	hurried	jellyfish	lame	lily
hit	hurry	jerk	lamp	limb
hitch	hurt	jig	land	line
hive	husband	job	lane	lip
he	hush	jockey	language	list
hoe	hut	join	lantern	listen
hog	hymn	joke	lap	
hold(er)	I	joking	lard	
hole	ice	jolly	large	
holiday	icy	journey	lash	
hollow	I'd	joy(ful)	lass	
holv	idea	joyous	last	

live(s)	maple	misspell	need	often
lively	marble	mistake	needle	oh
liver	march	misty	needn't	oil
living	mare	mitt	Negro	old
lizard	mark	mitten	neighbor	old-fashion
load	market	mix	neighborhood	on
loaf	marriage	moment	neither	once
loan	married	Monday	nerve	one
loaves	marry	money	nest	onion
lock	mask	monkey	net	only
locomotive	mast	month	never	onward
log	master	moo	nevermore	open
lone	mat	moon	new	or
lonely	match	moonlight	news	orange
lonesome	matter	moose	newspaper	orchard
long	mattress	top	next	order
look	may(M)	more	nibble	ore
lookout	maybe	morning	nice	organ
loop	mayor	morrow	nickel	other
loose	maypole	moss	night	otherwise
lord	me	most(ly)	nightgown	ouch
lose(r)	meadow	mother	nine	ought
loss	meal	motor	nineteen	our(s)
lost	meal(s)	mount	ninety	ourselves
lot	meant	mountain	no	out
loud	measure	mouse	nobody	outdoors
love	meat	mouth	nod	outfit
lovely	medicine	move	noise	outlaw
lover	meet(ing)	movie	noisy	outline
low	melt	movies	none	outside
luck(y)	member	moving	noon	outward
lumber	men	mow	nor	oven
lump	mend	Mr., Mrs.	north (ern)	over
lunch	meow	much	nose	overalls
lying	merry	mud	not	overcoat
ma	mess	muddy	note	overcoat
machine	message	mug	nothing	overhead
machinery	met	mule	notice	overhear
mad	metal	multiply	November	overnight
made	mew	murder	now	overturn
magazine	mice	music	nowhere	owe
magic	middle	must	number	owing
maid	midnight	my	nurse	owl
mail	might(y)	myself	nut	own(er)
mailbox	mile	nail	oak	ox
mailman	milk	name	oar	pa
major	milkman	nap	oatmeal	pace
make	mill	napkin	oats	pack
making	milller	narrow	obey	package
male	million	nasty	ocean	pad
mama	mind	naughty	o'clock	page
mamma	mine	navy	October	paid
man	miner	near	odd	pail
manager	mint	nearby	of	pain(ful)
mane	minute	nearly	off	paint(er)
manger	mirror	neat	offer	painting
many	mischief	neck	office	pair
map	miss(M)	necktie	officer	

Dale List of Familiar Words Continued

palace	picture	popcorn	queen	remove
pale	pie	popped	queer	rent
pan	piece	porch	question	repair
pancake	pig	pork	quick(ly)	repay
pane	pigeon	possible	quiet	repeat
pansy	piggy	post	quilt	report
pants	pile	postage	quit	rest
papa	pill	postman	quite	return
paper	pillow	pot	rabbit	review
parade	pin	potato(es)	race	reward
pardon	pine	pound	rack	rib
parent	pineapple	pour	radio	ribbon
park	pink	powder	radish	rice
part(ly)	pint	power(ful)	rag	rich
partner	pipe	praise	rail	rid
party	pistol	pray	railroad	riddle
pass	pit	prayer	railway	ride(r)
passenger	pitch	prepare	rain(y)	riding
past	pitcher	present	rainbow	right
paste	pity	pretty	raise	rim
pasture	place	price	raisin	ring
pat	plain	prick	rake	rip
patch	plan	prince	ram	ripe
path	plane	princess	ran	rise
patter	plant	print	ranch	rising
pave	plate	prison	rang	river
pavement	platform	prize	rap	road
paw	platter	promise	rapidly	roadside
pay	play(er)	proper	rat	roar
payment	playground	protect	rate	roast
peas(s)	playhouse	proud	rather	rob
peace(ful)	playmate	prove	rattle	robber
peach(es)	plaything	prune	raw	robe
peak	pleasant	public	ray	robin
peanut	please	puddle	reach	rock(y)
pear	pleasure	puff	read	rocket
pearl	plenty	pull	reader	rode
peck	plow	pump	reading	roll
peek	plug	pumpkin	ready	roller
peel	plum	punch	real	roof
peep	pocket	punish	really	room
peg	pocketbook	pup	reap	rooster
pen	poem	pupil	rear	root
pencil	point	puppy	reason	rope
penny	poison	pure	rebuild	rose
people	poke	purple	receive	rosebud
popper	pole	purse	recess	rot
peppermint	police	push	record	rotten
perfume	policeman	puss	red	rough
perhaps	polish	pussy	redbird	round
person	polite	pussycat	redbreast	route
pet	pond	put	refuse	row
phone	phonies	putting	reindeer	rowboat
piano	pory	puzzle	rejoice	royal
pick	pool	quack	remain	rub
pickle	poor	quart	remember	rubbed
picnic	pop	quarter	remind	rubber

Dale List of Familiar Words Continued

rubbish	screen	shed	sitting	sofa
rug	screw	sheep	six	soft
rule(r)	scrub	sheet	sixteen	soil
rubble	sea	shelf	sixth	sold
run	seal	shell	sixty	soldier
run;	seam	shepherd	size	sole
runner	search	shine	skate	some
running	season	shining	skater	somebody
rush	seat	shiny	ski	somehow
rust(y)	second	skip	skin	someone
rye	secret	shirt	skip	something
sack	see(ing)	shock	skirt	sometime(s)
sad	seed	shoe	sky	somewhere
saddle	seek	shoemaker	slam	son
sadness	seem	shone	slap	song
safe	seen	shook	slate	soon
safety	seesaw	shoot	slave	sore
safety	select	shop	sled	sorrow
sail	self	shopping	sleep(y)	sorry
sailboat	selfish	shore	sleeve	sort
sailor	sell	short	sleigh	soul
saint	send	shot	slept	sound
salad	sense	should	slice	soup
silo	sent	shoulder	slid	sour
same	sentence	shouldn't	slide	south(ern)
salt	separate	shout	sling	space
sand(y)	September	shovel	slip	spade
sandwich	servant	show	slipped	spank
sang	serve	shower	slipper	sparrow
sank	service	shut	slippery	speak(er)
sap	set	shy	slit	spear
sash	setting	sickness)	slow(ly)	speech
sat	settle	side	sly	speed
satin	settlement	sidewalk	smack	spell(ing)
satisfactory	seven	sideways	small	spend
Saturday	seventeen	sigh	smart	spent
sausage	seventh	sight	smell	spider
savage	seventy	sign	smile	spike
save	several	silence	smoke	spill
savings	sew	silent	smooth	spin
saw	shade	silk	snail	spinach
say	shadow	sill	snake	spirit
scab	shady	silly	snap	spit
scales	shake(r)	silver	snapping	splash
scare	shaking	simple	sneeze	spoil
scarf	shall	sin	snow(y)	spoke
school	shame	since	snowball	spook
schoolboy	shan't	sing	snowflake	spoon
schoolhouse	shape	singer	snuff	sport
schoolmaster	share	single	sung	spot
schoolroom	sharp	sink	so	spread
scorch	shave	sip	soak	spring
score	she	sir	soap	springtime
scrap	she'd	sis	sob	sprinkle
scrape	she'll	sissy	socks	square
scratch	she's	sister	sod	squash
scroom	shear(s)	sit	soda	squeak

squeeze	stretch	tablet	thimble	tongue
squirrel	string	tack	thin	tonight
stable	strip	tag	thing	too
stack	stripes	tail	think	took
stage	strong	sailor	third	tool
stair	stuck	take(n)	thirsty	toot
stall	study	taking	thirteen	tooth
stamp	stuff	tale	thirty	toothbrush
stand	stump	talk(er)	this	toothpick
star	stung	tall	the	top
stare	subject	tame	thorn	tore
start	such	tan	those	torn
starve	suck	tank	though	toss
state	sudden	tap	thought	touch
station	suffer	tape	thousand	tow
stay	sugar	tar	thread	toward(s)
steak	suit	tardy	three	towel
steal	sum	task	threw	tower
steam	summer	taste	threat	town
steamboat	sun	tax	through	trace
steamer	Sunday	tea	throw(n)	track
steel	sunflower	teach(er)	thumb	trade
steep	sung	team	thunder	train
steeple	sunk	tear	Thursday	tramp
steer	sunlight	tease	thy	trap
stem	sunny	teaspoon	tick	tray
step	sunrise	teeth	ticket	treasure
stepping	sunset	telephone	tickle	treat
stick(y)	sunshine	tell	tie	tree
stiff	supper	temper	tiger	trick
still(ness)	suppose	ten	tight	tricycle
sting	sure(ly)	tennis	till	tried
stir	surface	tent	time	trim
stitch	surprise	term	tin	trip
stock	swallow	terrible	tinkle	trolley
stocking	swam	test	tiny	trouble
stole	swamp	than	tip	truck
stone	swan	thank(s)	tiptoe	true
stood	swat	thankful	tire	truly
stool	swear	Thanksgiving	tired	trunk
stoop	sweat	that	'tis	trust
stop	sweater	that's	title	truth
stopped	sweep	the	to	try
stopping	sweet(ness)	theater	toad	tub
store	sweetheart	thee	toadstool	Tuesday
stork	swell	• their	toast	tug
stories	swept	them	tobacco	tulip
storm(y)	swift	then	today	thumble
story	swim	there	tow	tune
stove	swimming	these	together	tunnel
straight	swing	they	toilet	turkey
strange(r)	switch	they'd	told	turn
strap	sword	they'll	tomato	turtle
straw	swore	thick	ton	twenty
strawberry	table	thief	tone	twice
stream	tablecloth			
street	tablespoon			

twig	wake(n)	which	wore
twin	walk	while	work(er)
two	wall	whip	workman
ugly	walnut	whipped	world
umbrella	want	whirl	worm
uncle	war	whisky	worn
under	warm	whisper	worry
understand	warn	whistle	worse
underwear	was	white	
undress	wash(er)	who	worst
unfair	washtub	who'd	worth
unfinished	wasn't	whole	would
unfold	waste	who'll	wouldn't
unfriendly	watch	whom	wound
unhappy	watchman	who's	wove
unhurt	water	whose	wrap
uniform	watermelon	why	wrapped
United States	waterproof	wicked	
unkind	wave	wide	wreck
unless	way	wiggle	wren
unpleasant	wayside	wild	wring
until	we	wildcat	write
unwilling	weak(ness)	will	writing
up	weaken	willing	written
upon	wealth	willow	wrong
upper	weapon	win	wrote
upset	wear	wind(y)	wrung
upside	weary	windmill	yard
upstairs	weather	window	yarn
uptown	weave	wine	year
upward	web	wing	yell
us	we'd	wink	yellow
use(d)	wedding	winner	yes
useful	Wednesday	winter	yesterday
valentine	wee	wipe	
valley	weed	wire	yet
valuable	week	wise	yolk
value	we'll	wish	yonder
vase	weep	wit	you
valuable	week	wise	you'd
velvet	welcome	with	you'll
very	well	without	young
vessel	went	woke	
victory	were	wolf	youngster
view	we're	woman	your(s)
village	west(ern)	women	you're
vine	wet	won	yourself
violet	we've	wonder	yourselves
visit	whale	wonderful	youth
visitor	what	won't	you've
voice	what's	wood(en)	
vote	wheat	woodpecker	
wag	wheel	woods	
waist	whenever	woolen	
wait	where	word	

APPENDIX C

SUPPLEMENTARY TABLES

In the analysis of the data, particularly the test scores from the Nelson-Denny Reading Test, there were many supplementary tables, the development of which was required in order to get that information that was essential for the basic analysis for the study. These tables are listed in this appendix for further consideration.

TABLE I

C-1

Number of students enrolled by area from sending school

SENDING SCHOOLS	AGRI.	AUTO BODY	AUTO MECH.	ELECT.	HEAT A/C	LPN	TOTAL
ASH GROVE	00	00	01	00	00	00	01
BRONAUGH	00	01	02	00	02	00	05
CAUFIELD	01	00	00	00	00	00	01
CENTRAL	02	01	01	00	04	00	08
CLEVER	00	01	00	00	00	00	01
EL DORADO SPGS	00	00	00	03	02	00	05
FAIR GROVE	00	00	00	01	00	00	01
GLENDALE	03	04	02	04	00	00	13
HILLCREST	00	01	04	02	02	00	09
HUME	01	00	00	00	00	00	01
KICKAPOO	02	01	01	00	03	00	07
MARSHFIELD	00	00	00	00	01	00	01
METZ	00	00	00	01	00	00	01
NEVADA	24	08	06	02	05	30	75
OZARK	00	00	00	00	01	00	01
PARKVIEW	00	03	04	03	00	00	10
REPUBLIC	00	01	00	02	00	00	03
RICH HILL	00	00	00	02	04	00	06
ROGERSVILLE	00	01	00	00	00	00	01
SHELL CITY	00	00	00	01	00	00	01
SHELDON	00	00	00	02	01	00	03
SPRINGFIELD	00	00	00	00	00	28	28
STRAFFORD	01	00	00	00	01	00	02
WALKER	01	00	00	01	01	00	03
WEST PLAINS	18	13	13	11	00	21	76
WILLARD	00	01	00	02	00	00	03
WILLOW SPRINGS	00	00	00	01	00	00	01
TOTAL	59	36	34	66	38	79	267

TABLE II

NEVADA

Number of students enrolled and tested
by technology from sending school

SENDING SCHOOLS	AGRI.	AUTO BODY	AUTO MECH.	ELECT.	HEAT A/C	LPN	TOTAL
BRONAUGH	00	01	02	00	02	00	05
EL DORADO SPGS	00	00	00	00	02	00	02
HUME	01	00	00	00	00	00	01
METZ	00	00	00	01	00	00	01
NEVADA	24	08	06	02	05	30	75
RICH HILL	00	00	00	02	04	00	06
SCHELL CITY	00	00	00	01	00	00	01
SHELDON	00	00	00	02	01	00	03
WALKER	01	00	00	01	01	00	03
TOTAL	26	09	08	12	15	30	100

TABLE III

SPRINGFIELD
Number of students enrolled and tested
by technology from sending school

SENDING SCHOOLS	AGRI.	AUTO BODY	AUTO MECH.	ELECT.	HEAT A/C	LPN	TOTAL
ASH GROVE	00	00	01	00	00	00	01
CENTRAL	02	01	01	00	04	00	08
CLEVER	00	01	00	00	00	00	01
FAIR GROVE	00	00	00	01	00	00	01
GLENDALE	03	04	02	04	00	00	13
HILLCREST	00	01	04	02	02	00	09
KICKAPOO	02	01	01	00	03	00	07
MARSHFIELD	00	00	00	00	01	00	01
OZARK	00	00	00	00	01	00	01
PARKVIEW	00	03	04	03	00	00	10
REPUBLIC	00	01	00	02	00	00	03
ROGERSVILLE	00	01	00	00	00	00	01
SPRINGFIELD	00	00	00	00	00	28	28
STRAFFORD	01	00	00	00	01	00	02
WELLARD	00	01	00	02	00	00	03
TOTAL	08	14	13	14	12	28	89

TABLE IV

WEST PLAINS
Number of students enrolled and tested
by technology from sending school

SENDING SCHOOLS	AGRI.	AUTO BODY	AUTO MECH.	ELECT.	LPN	TOTAL
* CAUFIELD	01	00	00	00	00	01
WEST PLAINS	18	13	13	11	21	76
WILLOW SPRINGS	00	00	00	01	00	01
TOTAL	19	13	13	12	21	78

TABLE V

Average age level, by sex
enrolled in tested Area Voc-Tech Schools

Age	AGRI.		AUTO BODY		AUTO MECH.		ELECT.		HEAT A/C		LPN		TOTAL		COMBINED TOTAL
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
15	19	02	00	00	00	00	00	00	00	00	00	00	19	02	21
16	20	06	14	00	10	00	13	01	12	00	00	00	69	07	76
17	04	01	17	00	16	00	19	00	09	00	00	00	65	01	66
18	00	00	05	00	08	00	05	00	04	00	00	03	22	03	25
19	00	00	00	00	00	00	00	00	00	01	00	08	00	09	9
20	00	00	00	00	00	00	00	00	01	00	01	04	02	04	6
21 up	01	00	00	00	00	00	00	00	00	00	02	61	03	61	64
TOTAL	44	09	36	00	34	00	37	01	26	01	03	76	180	87	267

TABLE V-A

NEVADA

Average age level, by sex
enrolled by area in Nevada Voc-Tech School

Age	AGRI.		AUTO BODY		AUTO MECH.		ELECT.		HEAT A/C		LPN		TOTAL		% AVERAGE	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
15	11	1	0	0	0	0	0	0	0	0	0	0	11	1	92	8
16	10	0	5	0	4	0	4	0	7	0	0	0	30	0	100	0
17	2	1	3	0	4	0	7	0	5	0	0	0	21	1	95	5
18	0	0	1	0	0	0	1	0	1	0	0	2	3	2	60	40
19	0	0	0	0	0	0	0	0	0	1	0	3	0	4	0	100
20	0	0	0	0	0	0	0	0	1	0	1	1	2	1	67	33
21 up	1	0	0	0	0	0	0	0	0	0	2	21	3	21	12.5	87.5
TOTAL	24	2	9	0	8	0	12	0	14	1	3	27	70	30	70	30

TABLE V-B

SPRINGFIELD

Average age level, by sex
enrolled by area in Springfield Voc-Tech School

Age	AGRI.		AUTO BODY		AUTO MECH.		ELECT		HEAT A/C		LPN		TOTAL		% AVERAGE	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
15	04	01	00	00	00	00	00	00	00	00	00	00	04	01	80	10
16	03	00	05	00	02	00	03	00	05	00	00	00	18	00	100	00
17	00	00	08	00	06	00	07	00	04	00	00	00	25	00	100	00
18	00	00	01	00	05	00	04	00	03	00	00	00	13	00	100	00
19	00	00	00	00	00	00	00	00	00	00	00	03	00	03	00	100
20	00	00	00	00	00	00	00	00	00	00	00	02	00	02	00	100
21 up	00	00	00	00	00	00	00	00	00	00	00	23	00	23	00	100
TOTAL	07	01	14	00	13	00	14	00	12	00	00	28	60	29	67	33

TABLE V-C

WEST PLAINS

Average age level, by sex
enrolled by area in West Plains Voc-Tech School

Age	AGRI.		AUTO BODY		AUTO MECH.		ELECT.		LPN		TOTAL		% AVERAGE	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
15	04	00	00	00	00	00	00	00	00	00	04	00	100	00
16	07	06	04	00	04	00	06	01	00	00	21	07	75	25
17	02	00	06	00	06	00	05	00	00	00	19	00	100	00
18	00	00	03	00	03	00	00	00	00	01	06	01	86	14
19	00	00	00	00	00	00	00	00	00	02	00	02	00	100
20	00	00	00	00	00	00	00	00	00	01	00	01	00	100
21 up	00	00	00	00	00	00	00	00	00	17	00	17	00	100
TOTAL	13	06	13	00	13	00	11	01	00	21	50	28	64	36

TABLE VI-A

NEVADA

Grade level attainment by sex
enrolled by area in Nevada area Voc-Tech School

	AGRI.		AUTO BODY		AUTO MECH.		ELECT.		HEAT A/C		LPN		TOTAL	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
10	20	01	00	00	00	00	00	00	00	00	00	01	20	02
11	04	01	06	00	07	00	08	00	07	00	00	00	32	01
12	00	00	03	00	01	00	04	00	06	00	02	21	16	21
13 up	00	00	00	00	00	00	00	00	01	01	01	05	02	06
Total By Sex	24	02	09	00	08	00	12	00	14	01	03	27	70	30

Number of Students Enrolled by Grade Level of Attainment
by Area in Nevada Area Voc-Tech School

Technical Area	Grade Level of Attainment				Total
	10	11	12	Above	
AGRICULTURE	21	5	-	-	26
AUTO BODY	-	6	3	-	9
AUTO MECHANICS	-	7	1	-	8
ELECTRONICS	-	8	4	-	12
HEAT. & AIR CONDITIONING	-	-	6	2	15
LPN	1	-	23	6	30
TOTALS	22	33	37	8	100

TABLE VI-B

SPRINGFIELD

Grade level attainment by sex
enrolled by area in Springfield area Voc-Tech School

	AGRI.		AUTO BODY		AUTO MECH.		ELECT.		HEAT A/C		LPN		TOTAL	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
10	07	01	00	00	00	00	00	00	00	00	00	00	07	01
11	00	00	08	00	05	00	04	00	05	00	00	00	22	00
12	00	00	06	00	08	00	10	00	07	00	00	01	31	01
13 up	00	00	00	00	00	00	00	00	00	00	00	27	00	27
Total By Sex	07	01	14	00	13	00	14	00	12	00	00	28	60	29

Number of Students Enrolled by Grade Level of Attainment
by Area in Springfield Area Voc-Tech School

Technical Area	Grade Level of Attainment				Total
	10	11	12	Above	
AGRICULTURE	8	-	-	-	8
AUTO BODY	-	8	6	-	14
AUTO MECHANICS	-	5	8	-	13
ELECTRONICS	-	4	10	-	14
HEAT. & AIR CONDITIONING	-	5	7	-	12
LPN	-	-	1	27	28
TOTALS	8	22	32	27	89

TABLE VI-C

WEST PLAINS

Grade level attainment by sex
enrolled by area in West Plains Area Voc-Tech School

	AGRI.		AUTO BODY		AUTO MECH.		ELECT.		LPN		TOTAL	
	M	F	M	F	M	F	M	F	M	F	M	F
10	10	05	00	00	00	00	00	00	00	00	10	05
11	03	01	09	00	08	00	11	01	00	00	31	02
12	00	00	04	00	05	00	00	00	00	00	09	00
13 up	00	00	00	00	00	00	00	00	00	21	00	21
TOTAL BY SEX	13	06	13	00	13	00	11	01	00	21	50	28

Number of Students Enrolled by Grade Level of Attainment
by Area in West Plains Area Voc-Tech School

Technical Area	Grade Level of Attainment				Total
	10	11	12	Above	
AGRICULTURE	15	4	-	-	19
AUTO BODY	-	9	4	-	13
AUTO MECHANICS	-	8	5	-	13
ELECTRONICS	-	12	-	-	12
LPN	-	-	-	21	21
TOTALS	15	33	9	21	78

TABLE VI

Average Reading Ability by Percentile Rank of
Students Enrolled and Tested in the
Area Voc-Tech Schools of Southwest Missouri

in Agriculture

		Vocabulary	Comprehension	Total	Reading Rate
Nevada	(26)	32	35	32	43
Springfield	(08)	59	44	51	66
West Plains	(19)	48	41	42	49

in Auto Body

		Vocabulary	Comprehension	Total	Reading Rate
Nevada	(09)	45	34	39	42
Springfield	(14)	34	29	32	35
West Plains	(13)	37	34	34	03

in Auto Mech.

		Vocabulary	Comprehension	Total	Reading Rate
Nevada	(08)	45	50	49	47
Springfield	(13)	37	32	33	52
West Plains	(13)	34	42	38	33

in Electronics

		Vocabulary	Comprehension	Total	Reading Rate
Nevada	(12)	74	45	62	60
Springfield	(14)	68	52	62	59
West Plains	(12)	39	41	39	45

TABLE VI

Average Reading Ability by Percentile Rank of
Students Enrolled and Tested in the
Area Voc-Tech Schools of Southwest Missouri

In Heating and Air-conditioning

		Vocabulary	Comprehension	Total	Reading Rate
Nevada	(15)	43	32	36	33
Springfield	(12)	22	38	29	42

In LPN

		Vocabulary	Comprehension	Total	Reading Rate
Nevada	(30)	78	37	63	56
Springfield	(28)	60	38	50	59
West Plains	(21)	66	33	54	37

TABLE VI - A

Average Reading Ability by Percentile Rank of
Students Enrolled in Agriculture by School District
in Area Voc-Tech Schools

		Vocabulary	Comprehension	Total	Reading Rate
Caufield	(01)	02	55	24	22
Central	(02)	50	14	24	58
Glendale	(03)	34	35	32	39
Hume	(01)	16	19	16	37
Kickapoo	(02)	92	69	87	79
Nevada	(24)	31	35	32	41
Strafford	(01)	88	84	92	79
Walker	(01)	58	34	46	88
West Plains	(18)	50	40	43	51
TOTAL	(53)	42	38	39	49

TABLE VI - B

Average Reading Ability by Percentile Rank of
Students Enrolled in Auto Body by School District
in Area Voc-Tech Schools

		Vocabulary	Comprehension	Total	Reading Rate
Butler	(01)	65	34	51	85
Central	(01)	18	05	09	88
Clever	(01)	19	59	39	50
Glendale	(04)	64	51	58	53
Hillcrest	(01)	40	03	10	18
Kickapoo	(01)	11	04	05	01
Nevada	(08)	43	34	37	37
Parkview	(03)	30	21	25	28
Republic	(01)	71	34	55	20
Rogersville	(01)	03	29	13	02
West Plains	(13)	37	34	34	03
Willard	(01)	04	06	04	23
TOTAL	(36)	39	32	34	25

TABLE VI - C

Average Reading Ability by Percentile Rank of
Students Enrolled in Auto Mechanics by School District
in Area Voc-Tech Schools

		Vocabulary	Comprehension	Total	Reading Rate
Ash Grove	(01)	37	19	24	71
Butler	(02)	41	59	50	50
Central	(01)	52	59	56	23
Glendale	(02)	40	53	40	65
Hillcrest	(04)	44	37	40	68
Kickapoo	(01)	49	24	34	11
Nevada	(06)	46	47	48	46
Parkview	(04)	22	18	20	42
West Plains	(13)	34	42	38	33
TOTAL	(34)	38	40	39	43

TABLE VI - D
Average Reading Ability by Percentile Rank of
Students Enrolled in Electronics by School District
in Area Voc-Tech Schools

		Vocabulary	Comprehension	Total	Reading Rate
El Dorado Spgs	(03)	70	42	54	35
Fair Grove	(01)	37	34	34	58
Glendale	(04)	59	34	39	49
Hillcrest	(02)	63	77	64	46
Metz	(01)	74	40	63	74
Nevada	(02)	76	47	65	81
Parkview	(03)	82	66	80	90
Republic	(02)	90	46	79	70
Rich Hill	(02)	87	76	85	99
Schell City	(01)	55	23	37	77
Sheldon	(02)	75	29	61	45
Walker	(01)	75	47	65	14
West Plains	(11)	39	41	39	47
Willard	(02)	61	59	59	33
Willow Springs	(01)	43	40	41	23
TOTAL	(38)	61	46	55	55

TABLE VI - E

Average Reading Ability by Percentile Rank of
Students Enrolled in Heating and Air Conditioning by
School District in Area Voc-Tech Schools

		Vocabulary	Comprehension	Total	Reading Rate
Bronaugh	(02)	61	41	50	19
Central	(04)	33	39	35	46
El Dorado Spgs	(02)	31	37	33	48
Hillcrest	(02)	13	34	23	13
Kickapoo	(03)	11	27	17	52
Marshfield	(01)	54	72	62	46
Nevada	(05)	66	45	55	46
Ozark	(01)	07	50	28	20
Rich Hill	(04)	19	19	17	19
Sheldon	(01)	32	12	17	43
Strafford	(01)	10	24	16	68
Walker	(01)	23	12	13	14
TOTAL	(27)	34	35	33	37

TABLE VI - F

Average Reading Ability by Percentile Rank of
Students Enrolled in LPN by School District
in Area Voc-Tech Schools

		Vocabulary	Comprehension	Total	Reading Rate
Nevada	(30)	78	37	63	56
Springfield	(28)	60	38	50	59
West Plains	(21)	66	33	54	37
TOTAL	(79)	68	36	56	52

TABLE VII

Average Reading Scores by Grade Level Ability
of Students Enrolled and Tested in the
Area Voc-Tech Schools of Southwest Missouri

in Agriculture

		Vocabulary	Comprehension	Total	Reading Rate
Nevada	(26)	9.6	8.9	8.4	8.1
Springfield	(08)	11.7	8.7	11.0	13.0
West Plains	(19)	10.9	10.0	10.4	8.8

in Auto Body

		Vocabulary	Comprehension	Total	Reading Rate
Nevada	(09)	11.3	9.9	10.7	7.5
Springfield	(14)	10.8	8.5	8.1	6.7
West Plains	(13)	10.9	9.2	10.2	4.5

in Auto Mech.

		Vocabulary	Comprehension	Total	Reading Rate
Nevada	(08)	11.3	11.7	11.6	8.2
Springfield	(13)	10.9	10.0	9.4	11.7
West Plains	(13)	10.5	10.9	10.6	6.2

in Electronics

		Vocabulary	Comprehension	Total	Reading Rate
Nevada	(12)	13.8	11.1	12.9	9.9
Springfield	(14)	13.6	12.2	13.2	12.1
West Plains	(12)	10.7	10.6	10.6	9.5

TABLE VII

Average Reading Scores by Grade Level Ability
of Students Enrolled and Tested in the
Area Voc-Tech Schools of Southwest Missouri

in Heating and Air-conditioning

		Vocabulary	Comprehension	Total	Reading Rate
Nevada	(15)	11.0	9.5	10.2	6.5
Springfield	(12)	9.3	10.7	9.8	8.5

in LPN

Nevada	(30)	14.4	10.8	13.5	12.2
Springfield	(28)	14.3	11.8	13.4	13.2
West Plains	(21)	14.4	11.5	13.5	9.7

TABLE VII - A

Average Reading Scores by Grade Level Ability
of Students Enrolled and Tested in Agriculture by
School District in Area Voc-Tech Schools

		Vocabulary	Comprehension	Total	Reading Rate
Caulfield	(01)	6.8	11.5	8.5	6.5
Central	(02)	11.0	1.5	8.3	11.7
Glendale	(03)	9.2	9.2	9.2	11.8
Hume	(01)	8.3	8.1	8.1	9.1
Kickapoo	(02)	14.9	13.0	14.2	15.2
Nevada	(24)	8.1	7.7	7.0	6.5
Strafford	(01)	14.6	14.1	15.0	15.0
Walker	(01)	12.7	10.0	11.5	15.0
West Plains	(18)	11.1	10.0	10.5	8.9
TOTAL	(53)	10.4	9.3	9.5	9.1

TABLE VII - B

Average Reading Scores by Grade Level Ability
of Students Enrolled and Tested in Auto Body
by School District in Area Voc-Tech Schools

		Vocabulary	Comprehension	Total	Reading Rate
Butler	(01)	13.1	10.0	12.0	15.0
Central	(01)	9.2	6.6	7.5	15.0
Clever	(01)	8.6	12.8	10.7	11.3
Glendale	(04)	13.5	11.8	12.6	11.4
Hillcrest	(01)	10.9	-6.0	7.1	6.5
Kickapoo	(01)	7.9	6.0	-6.0	-6.0
Nevada	(08)	5.3	11.0	10.5	6.5
Parkview	(03)	10.8	8.7	9.6	4.7
Republic	(01)	14.3	10.8	13.1	7.0
Rogersville	(01)	7.1	9.3	7.7	-6.0
West Plains	(13)	10.9	9.2	10.2	4.5
Willard	(01)	7.3	6.3	-6.0	7.0
TOTAL	(36)	11.0	9.1	9.5	6.1

TABLE VII - C

Average Reading Scores by Grade Level Ability
of Students Enrolled and Tested in Auto Mechanics by
School District in Area Voc-Tech Schools

		Vocabulary	Comprehension	Total	Reading Rate
Ash Grove	(01)	11.4	8.7	10.0	15.0
Butler	(02)	10.9	12.7	11.9	11.3
Central	(01)	12.0	12.8	12.5	7.0
Glendale	(02)	11.2	12.1	11.2	13.8
Hillcrest	(04)	11.7	10.6	11.1	13.9
Kickapoo	(01)	12.7	9.3	11.1	6.0
Nevada	(06)	11.4	11.4	11.5	7.1
Parkview	(04)	9.3	8.2	5.6	10.4
West Plains	(13)	10.5	10.9	10.6	6.2
TOTAL	(34)	10.8	10.7	10.4	8.8

TABLE VII - D

Average Reading Scores by Grade Level Ability
of Students Enrolled and Tested in Electronics by
School District in Area Voc-Tech Schools

		Vocabulary	Comprehension	Total	Reading Rate
El Dorado Spgs	(03)	13.5	10.9	12.6	9.2
Fair Grove	(01)	11.4	10.8	11.1	13.0
Glendale	(04)	13.0	10.4	12.3	11.2
Hillcrest	(02)	13.9	14.4	13.6	11.3
Metz	(01)	13.9	11.5	13.0	7.5
Nevada	(02)	13.9	11.3	13.0	14.4
Parkview	(03)	14.3	13.5	14.2	15.0
Republic	(02)	15.0	11.9	14.4	13.2
Rich Hill	(02)	15.0	14.0	14.6	15.0
Schell City	(01)	12.4	8.7	10.6	15.0
Sheldon	(02)	13.7	9.4	12.6	4.5
Walker	(01)	14.0	11.5	13.1	6.0
West Plains	(11)	10.7	10.6	10.6	9.8
Willard	(02)	13.2	12.8	12.9	9.0
Willow Spgs	(01)	11.1	10.8	10.9	7.0
TOTAL	(38)	12.8	11.4	12.3	10.6

TABLE VII - E

Average Reading Scores by Grade Level Ability
of Students Enrolled and Tested in Heating and Air
Conditioning by School District
in Area Voc-Tech Schools

		Vocabulary	Comprehension	Total	Reading Rate
Bronaugh	(02)	12.7	10.8	11.7	.9
Central	(04)	10.5	10.9	7.1	10.9
El Dorado Spgs	(02)	10.0	10.4	10.1	11.0
Hillcrest	(02)	8.3	10.4	9.3	.5
Kickapoo	(03)	7.9	9.2	8.1	8.1
Marshfield	(01)	13.1	14.1	13.5	11.3
Nevada	(05)	13.4	8.9	10.1	10.7
Ozark	(01)	8.1	12.8	10.4	7.0
Rich Hill	(04)	8.6	8.0	8.1	1.2
Sheldon	(01)	10.1	7.0	8.3	10.3
Strafford	(01)	8.3	9.3	8.8	14.6
Walker	(01)	8.9	7.0	7.7	6.0
TOTAL	(27)	10.3	10.0	10.0	7.4

TABLE VII.- F

Average Reading Scores by Grade Level Ability
of Students Enrolled and Tested in LPN by
School District in Area Voc-Tech Schools

		Vocabulary	Comprehension	Total	Reading Rate
Nevada	(30)	14.4	10.8	13.5	12.1
Springfield	(28)	14.3	11.8	13.4	13.2
West Plains	(21)	14.4	11.5	13.5	9.7
TOTAL	(79)	14.3	11.3	13.5	11.9

TABLE VI

RAW SCORES
Frequency Rates for Students Enrolled
in Agriculture in the Nevada Area Voc-Tech School

Vocabulary	Comprehension	Total	Reading Rate
6 - 2	3 - 1	4 - 1	7 - 1
11 - 1	8 - 2	7 - 1	10 - 2
12 - 1	11 - 1	12 - 1	14 - 1
16 - 3	15 - 2	14 - 3	17 - 2
19 - 5	19 - 2	16 - 1	22 - 4
26 - 1	24 - 2	18 - 1	32 - 2
30 - 1	30 - 1	21 - 1	37 - 2
34 - 2	34 - 1	22 - 1	43 - 1
38 - 2	35 - 4	26 - 2	49 - 2
45 - 1	41 - 3	29 - 2	50 - 1
49 - 2	48 - 1	33 - 1	60 - 1
55 - 1	55 - 2	35 - 2	69 - 2
58 - 2	59 - 1	37 - 1	79 - 2
60 - 1	61 - 1	43 - 1	86 - 1
77 - 1	74 - 1	45 - 1	88 - 1
	77 - 1	46 - 1	93 - 1
		50 - 1	
		58 - 1	
		61 - 1	
		66 - 1	
		72 - 1	

Frequency Rates by Grade Level for Students Enrolled
in Agriculture in the Nevada Voc-Tech School

Vocabulary	Comprehension	Total	Reading Rate
7.3 - 2	-6.0 - 1	-6.0 - 1	-6.0 - 4
7.7 - 1	6.3 - 1	6.6 - 1	6.0 - 2
7.9 - 3	6.6 - 2	6.8 - 1	6.5 - 3
8.1 - 4	7.0 - 2	7.1 - 2	7.7 - 2
8.3 - 1	7.5 - 1		8.4 - 1
8.6 - 2	8.1 - 3	7.7 - 1	9.1 - 2
8.9 - 1	8.7 - 1	8.1 - 2	10.3 - 2
9.2 - 1	9.3 - 4	8.3 - 1	11.3 - 1
9.6 - 2	10.0 - 4	8.6 - 2	12.3 - 1
10.5 - 1	10.8 - 1	8.9 - 2	13.8 - 2
10.9 - 2	11.5 - 2	9.3 - 2	15.0 - 6
11.4 - 1	12.2 - 1	9.5 - 2	
11.7 - 1	12.8 - 1	9.7 - 1	
12.7 - 1	13.5 - 1	10.2 - 1	
12.9 - 1	13.8 - 1	10.4 - 1	
13.1 - 1		11.5 - 1	
13.5 - 1		11.6 - 1	
		11.8 - 1	
		12.5 - 1	
		12.8 - 1	
		12.9 - 1	

TABLE VI
NEVADA

Average Reading Scores by %-ile rank
of students enrolled in Nevada Area Voc-Tech School

	AGRI. (26)	AUTO BODY (09)	AUTO MECH. (08)	ELECT. (12)	HEAT A/C (15)	LPN (30)	AVERAGE (100)
VOCABULARY	32	45	45	74	43	78	53
COMPREHENSION	35	34	50	45	32	37	39
TOTAL	32	39	49	62	36	63	47
READING RATE	43	42	47	60	33	56	47

TABLE VI

Average Reading Scores by Grade Level
of students enrolled in Nevada Area Voc-Tech School

	AGRI. (26)	AUTO BODY (09)	AUTO MECH. (08)	ELECT. (12)	HEAT A/C (15)	LPN (30)	AVERAGE (100)
VOCABULARY	9.6	11.3	11.3	13.8	11.0	14.4	12.0
COMPREHENSION	8.9	9.9	11.7	11.1	9.5	10.8	10.1
TOTAL	8.4	10.7	11.6	12.9	10.2	13.5	11.2
READING RATE	8.1	7.5	8.2	9.9	6.5	12.2	9.3

VI

Average Reading Ability of Students Enrolled in Agriculture at the Nevada Area Voc-Tech School by Percentile Rank and School District

	Vocabulary	Comprehension	Total	Reading Rate
Nevada (24)	31	35	32	41
Hume (01)	16	19	16	37
Walker (01)	58	34	46	88
TOTAL (26)	32	35	32	43

VI

Average Reading Ability by Grade Level of Students Enrolled in Agriculture at the Nevada Area Voc-Tech School by School District

	Vocabulary	Comprehension	Total	Reading Rate
Nevada (24)	8.1	7.7	7.0	6.5
Hume (01)	8.3	8.1	8.1	9.1
Walker (01)	12.7	10.0	11.5	15.0
TOTAL (26)	9.6	8.9	8.4	8.1

VI

Average Reading Ability of Students Enrolled
in Auto Body at the Nevada Area Voc-Tech School
by Percentile Rank and School District

	Vocabulary	Comprehension	Total	Reading Rate
Butler (01)	65	34	51	85
Nevada (08)	43	34	37	37
TOTAL (09)	45	34	39	42

VI

Average Reading Ability by Grade Level of Students Enrolled
in Auto Body at the Nevada Area Voc-Tech School

	Vocabulary	Comprehension	Total	Reading Rate
Butler (01)	13.1	10.0	12.0	15.0
Nevada (08)	5.3	11.0	10.5	6.5
TOTAL (09)	11.3	9.9	10.7	7.5

VI

Frequency Rates for Students Enrolled in Auto Body at the Nevada Area Voc-Tech School

Vocabulary	Comprehension	Total	Reading Rate
26 - 1	15 - 1	18 - 1	10 - 2
29 - 1	19 - 2	20 - 1	27 - 1
32 - 1	23 - 1	26 - 1	31 - 1
36 - 1	34 - 2	27 - 1	43 - 2
40 - 1	47 - 1	39 - 1	61 - 1
49 - 1	59 - 2	51 - 1	70 - 1
55 - 1		54 - 1	85 - 1
65 - 1		57 - 2	
76 - 1			

VI

Frequency Rates by Grade Level for Students Enrolled in Auto Body at the Nevada Area Voc-Tech School

Vocabulary	Comprehension	Total	Reading Rate
9.2 - 1	7.5 - 1	8.5 - 1	-6.0 - 2
9.6 - 1	8.1 - 2	8.6 - 1	7.7 - 1
10.1 - 1	8.7 - 1	9.3 - 1	8.4 - 1
10.5 - 1	10.0 - 2	9.5 - 1	10.3 - 2
10.9 - 1	11.5 - 1	10.7 - 1	13.0 - 1
11.7 - 1	12.8 - 2	12.0 - 1	14.6 - 1
12.4 - 1		12.3 - 1	15.0 - 1
13.3 - 1		12.6 - 2	
13.9 - 1			

VI

Average Reading Ability of Students Enrolled in Auto Mechanics at the Nevada Area Voc-Tech School by Percentile Rank and School District

	Vocabulary	Comprehension	Total	Reading Rate
Butler (02)	41	59	50	50
Nevada (06)	46	47	48	46
TOTAL (08)	45	50	49	47

VI

Average Reading Ability by Grade Level of Students Enrolled in Auto Mechanics at the Nevada Area Voc-Tech School

	Vocabulary	Comprehension	Total	Reading Rate
Butler (02)	10.9	12.7	11.9	11.3
Nevada (06)	11.4	11.4	11.5	7.1
TOTAL (08)	11.3	11.7	11.6	8.2

VI

Frequency Rates for Students Enrolled in Auto Mechanics at the Nevada Area Voc-Tech School

Vocabulary	Comprehension	Total	Reading Rate
13 - 1	12 - 1	10 - 1	0 - 1
32 - 2	29 - 1	43 - 1	18 - 1
36 - 1	53 - 2	45 - 2	43 - 1
49 - 1	59 - 1	53 - 1	56 - 2
52 - 1	61 - 1	56 - 1	57 - 1
60 - 1	64 - 1	57 - 1	68 - 1
87 - 1	69 - 1	80 - 1	74 - 1

VI

Frequency Rates by Grade Level for Students Enrolled in Auto Mechanics at the Nevada Area Voc-Tech School

Vocabulary	Comprehension	Total	Reading Rate
8.1 - 1	7.0 - 1	7.1 - 1	-6.0 - 1
10.1 - 2	9.3 - 1	11.1 - 1	6.5 - 1
10.5 - 1	12.2 - 2	11.3 - 2	10.3 - 1
11.7 - 1	12.8 - 1	12.1 - 1	12.3 - 2
12.0 - 1	13.2 - 1	12.5 - 1	14.6 - 1
12.9 - 1	13.5 - 2	12.6 - 1	15.3 - 1
15.0 - 1		14.7 - 1	

VI

Average Reading Ability of Students Enrolled
in Electronics at the Nevada Area Voc-Tech School
by Percentile Rank and School District

		Vocabulary	Comprehension	Total	Reading Rate
El Dorado Spgs (03)		70	42	54	35
Metz (01)		74	40	63	74
Nevada (02)		76	47	65	81
Rich Hill (02)		87	76	85	99
Schell City (01)		55	23	37	77
Sheldon (02)		75	29	61	45
Walker (01)		75	47	65	14
TOTAL (12)		74	45	62	60

VI

Average Reading Ability by Grade Level of Students Enrolled
in Electronics at the Nevada Area Voc-Tech School

El Dorado Spgs (03)		13.5	10.9	12.6	9.2
Metz (01)		13.9	11.5	13.0	7.5
Nevada (02)		13.9	11.3	13.0	14.4
Rich Hill (02)		15.0	14.0	14.6	15.0
Schell City (01)		12.4	8.7	10.6	15.0
Sheldon (02)		13.7	9.4	12.6	4.5
Walker (01)		14.0	11.5	13.1	6.0
TOTAL (12)		13.8	11.1	12.9	9.9

VI

Frequency Rates for Students Enrolled in Electronics at the Nevada Area Voc-Tech School by Percentile Rank

Vocabulary	Comprehension	Total	Reading Rate
52 - 1	23 - 2	35 - 1	04 - 1
55 - 2	29 - 1	37 - 1	10 - 1
58 - 1	34 - 3	43 - 2	14 - 2
67 - 1	40 - 1	45 - 1	66 - 1
74 - 1	47 - 1	63 - 1	74 - 1
75 - 1	59 - 1	65 - 1	77 - 1
87 - 2	64 - 1	77 - 1	79 - 1
92 - 1	74 - 1	84 - 2	87 - 1
93 - 1	78 - 1	85 - 1	95 - 1
94 - 1		87 - 1	99 - 2

VI

Frequency Rates by Grade Level for Students Enrolled in Electronics at the Nevada Area Voc-Tech School

Vocabulary	Comprehension	Total	Reading Rate
12.0 - 1	8.7 - 2	10.6 - 1	-6.0 - 2
12.4 - 2	9.3 - 1	11.1 - 2	6.0 - 2
12.7 - 1	10.0 - 3	11.3 - 1	13.8 - 1
13.5 - 1	11.5 - 2	12.1 - 1	15.0 - 6
13.9 - 1	12.8 - 1	13.0 - 1	15.3 - 1
14.0 - 1	13.2 - 1	13.1 - 1	
15.0 - 5	13.8 - 1	13.9 - 1	
	14.1 - 1	14.5 - 2	
		14.6 - 1	
		14.8 - 1	

VI

Average Reading Ability of Students Enrolled
in Heating and Air-conditioning at the Nevada Area Voc-Tech School
by Percentile Rank and School District

		Vocabulary	Comprehension	Total	Reading Rate
Bronaugh	(02)	61	41	50	19
El Dorado Spgs	(02)	31	37	33	48
Nevada	(05)	66	45	55	46
Rich Hill	(04)	19	19	17	19
Sheldon	(01)	32	12	17	43
Walker	(01)	23	12	13	14
TOTAL	(15)	43	32	36	33

VI

Average Reading Ability by Grade Level of Students Enrolled
In Heating and Air-conditioning at the Nevada Area Voc-Tech School

		Vocabulary	Comprehension	Total	Reading Rate
Bronaugh	(02)	12.7	10.8	11.7	.9
El Dorado Spgs	(02)	10.0	10.4	10.1	11.0
Nevada	(05)	13.4	8.9	10.1	10.7
Rich Hill	(04)	8.6	8.0	8.1	1.2
Sheldon	(01)	10.1	7.0	8.3	10.3
Walker	(01)	8.9	7.0	7.7	6.0
TOTAL	(15)	11.0	9.5	10.2	6.5

VI

Frequency Rates for Students Enrolled in Air-conditioning and Refrigeration at the Nevada Voc-Tech School by Percentile Rank

Vocabulary	Comprehension	Total	Reading Rate
11 - 1	08 - 1	09 - 1	04 - 1
13 - 1	12 - 3	12 - 1	10 - 2
22 - 2	15 - 2	13 - 1	14 - 1
23 - 1	19 - 1	17 - 1	18 - 1
29 - 1	23 - 1	18 - 1	25 - 1
32 - 1	34 - 2	27 - 3	27 - 1
40 - 1	40 - 1	32 - 1	37 - 1
46 - 1	53 - 1	35 - 1	40 - 1
58 - 1	59 - 1	39 - 1	43 - 4
60 - 2	64 - 1	61 - 1	66 - 1
65 - 1	82 - 1	63 - 1	70 - 1
76 - 1		68 - 1	
89 - 1		88 - 1	

VI

Frequency Rates by Grade Level for Students Enrolled in Air-conditioning and Refrigeration at the Nevada Voc-Tech School

Vocabulary	Comprehension	Total	Reading Rate
7.7 - 1	6.6 - 1	6.9 - 1	-6.0 - 3
8.1 - 1	7.0 - 3	7.5 - 1	6.0 - 1
8.9 - 3	7.5 - 2	7.7 - 1	6.5 - 1
9.6 - 1	8.1 - 1	8.3 - 1	7.3 - 1
10.0 - 1	8.7 - 1	8.5 - 1	7.7 - 1
10.9 - 1	10.0 - 2	9.5 - 3	9.1 - 1
11.4 - 1	10.8 - 1	10.0 - 1	10.0 - 1
12.7 - 1	12.2 - 1	10.4 - 1	10.3 - 4
12.9 - 2	12.8 - 1	10.7 - 1	13.8 - 1
13.3 - 1	13.2 - 1	12.8 - 1	14.6 - 1
13.9 - 1	14.4 - 1	13.0 - 1	
15.0 - 1		13.3 - 1	
		14.9 - 1	

VI

Average Reading Ability of Students Enrolled
in LPN at the Nevada Area Voc-Tech School
by Percentile Rank and School District

	Vocabulary	Comprehension	Total	Reading Rate
Nevada (30)	78	37	63	56

VI

Average Reading Ability by Grade Level of Students Enrolled
in LPN at the Nevada Area Voc-Tech School

	Vocabulary	Comprehension	Total	Reading Rate
Nevada (30)	14.4	10.8	13.5	12.2

VI

Frequency Rates for Students Enrolled in LPN at the Nevada Area Voc-Tech School by Percentile Rank

Vocabulary	Comprehension	Total	Reading Rate
43 - 1	4 - 2	18 - 1	9 - 1
49 - 1	6 - 1	35 - 1	15 - 3
52 - 1	9 - 1	37 - 1	23 - 1
54 - 2	11 - 1	38 - 1	28 - 2
59 - 2	17 - 2	41 - 1	34 - 2
63 - 1	21 - 3	43 - 1	39 - 1
66 - 1	22 - 1	45 - 1	46 - 1
68 - 1	25 - 3	46 - 1	52 - 1
69 - 1	30 - 1	47 - 1	57 - 2
71 - 1	36 - 2	48 - 1	58 - 3
77 - 1	37 - 1	50 - 1	63 - 2
79 - 2	41 - 1	51 - 1	66 - 1
85 - 1	45 - 1	52 - 1	68 - 1
88 - 1	47 - 1	57 - 1	72 - 1
91 - 1	53 - 2	58 - 1	75 - 1
93 - 2	58 - 1	59 - 1	81 - 1
94 - 1	63 - 2	63 - 1	84 - 1
95 - 3	69 - 1	66 - 1	86 - 1
96 - 4	77 - 1	71 - 1	92 - 2
99 - 2	83 - 2	73 - 1	99 - 2
		77 - 1	
		84 - 1	
		85 - 1	
		86 - 1	
		89 - 2	
		91 - 1	
		95 - 1	
		98 - 1	
		99 - 1	

VI

Frequency Rates by Grade Level for Students Enrolled
in LPN at the Nevada Area Voc-Tech School

Vocabulary	Comprehension	Total	Reading Rate
12.7 - 1	7.0 - 1	10.7 - 1	6.5 - 4
12.9 - 2	7.5 - 1	10.9 - 1	7.0 - 1
13.3 - 2	8.1 - 3	11.1 - 1	7.7 - 1
13.5 - 1	8.7 - 5	11.3 - 1	8.4 - 1
13.6 - 1	9.3 - 4	11.6 - 1	9.1 - 2
13.8 - 1	10.0 - 2	11.8 - 1	11.3 - 1
13.9 - 1	10.8 - 2	12.0 - 1	12.3 - 1
14.0 - 1	11.5 - 1	12.1 - 1	13.0 - 4
14.2 - 1	12.2 - 1	12.3 - 1	13.8 - 2
14.5 - 1	12.8 - 2	12.5 - 1	14.6 - 1
14.7 - 1	13.2 - 1	12.6 - 1	15.0 - 11
15.0 - 17	13.5 - 2	13.1 - 1	15.3 - 1
	13.8 - 1	13.3 - 1	
	14.1 - 1	13.6 - 2	
	14.7 - 3	13.9 - 1	
		14.0 - 1	
		14.2 - 1	
		14.5 - 1	
		14.7 - 1	
		14.9 - 2	
		15.0 - 8	

SPRINGFIELD

Average Reading Scores by %-ile rank
of students enrolled in Springfield Area Voc-Tech School

	AGRI. (08)	AUTO BODY (14)	AUTO MECH. (13)	ELECT. (14)	HEAT A/C (12)	LPN (28)	AVERAGE (89)
VOCABULARY	59	34	37	68	22	60	47
COMPREHENSION	44	29	32	52	38	38	39
TOTAL	51	32	33	52	29	50	43
READING RATE	66	35	52	59	42	59	52

Average Reading Scores by Grade Level

	AGRI. (08)	AUTO BODY (14)	AUTO MECH. (13)	ELECT. (14)	HEAT A/C (12)	LPN (28)	AVERAGE (89)
VOCABULARY	11.7	10.8	10.9	13.6	9.3	14.3	11.8
COMPREHENSION	8.7	8.5	10.0	12.2	10.7	11.8	12.4
TOTAL	11.0	8.1	9.4	13.2	9.8	13.4	12.8
READING RATE	13.0	6.7	11.7	12.1	8.5	13.2	13.0

V

Average Reading Ability of Students Enrolled
in Agriculture at the Springfield Area Voc-Tech School
by Percentile Rank and School District

		Vocabulary	Comprehension	Total	Reading Rate
Central	(02)	50	14	24	58
Glendale	(03)	34	35	32	59
Kickapoo	(02)	92	69	87	79
<u>Strafford</u>	(01)	88	84	92	79
TOTAL	(08)	59	44	51	66

V

Average Reading Ability by Grade Level of Students Enrolled
in Agriculture at the Springfield Area Voc-Tech School

		Vocabulary	Comprehension	Total	Reading Rate
Central	(02)	11.0	1.5	8.3	11.7
Glendale	(03)	9.2	9.2	9.2	11.8
Kickapoo	(02)	14.9	13.0	14.2	15.2
<u>Strafford</u>	(01)	14.6	14.1	15.0	15.0
TOTAL	(08)	11.7	8.7	9.9	13.0

Frequency Rates for Students Enrolled
in Agriculture at the Springfield Area Voc-Tech School
by Percentile Rank

Vocabulary	Comprehension	Total	Reading Rate
30 - 1	04 - 1	16 - 1	37 - 1
34 - 1	19 - 1	24 - 1	43 - 1
38 - 1	24 - 1	28 - 1	55 - 1
45 - 1	30 - 1	31 - 1	76 - 1
55 - 1	55 - 1	45 - 1	79 - 3
88 - 1	67 - 1	84 - 1	81 - 1
89 - 1	72 - 1	89 - 1	
94 - 1	84 - 1	92 - 1	

Frequency Rates by Grade Level for Students Enrolled
in Agriculture at the Springfield Area Voc-Tech School

Vocabulary	Comprehension	Total	Reading Rate
8.9 - 1	-6.0 - 1	7.5 - 1	8.4 - 1
9.2 - 1	7.5 - 1	8.5 - 1	9.1 - 1
9.6 - 1	8.1 - 1	8.8 - 1	11.3 - 1
10.5 - 1	8.7 - 1	9.1 - 1	15.0 - 4
11.4 - 1	11.5 - 1	10.4 - 1	15.3 - 1
14.6 - 1	12.8 - 1	13.9 - 1	
14.7 - 1	13.2 - 1	14.4 - 1	
15.0 - 1	14.1 - 1	15.0 - 1	

V

Average Reading Ability of Students Enrolled
in Auto Body at the Springfield Area Voc-Tech School
by Percentile Rank and School District

		Vocabulary	Comprehension	Total	Reading Rate
Central	(01)	18	5	9	88
Clever	(01)	19	59	39	50
Glendale	(04)	64	51	58	53
Hillcrest	(01)	40	03	10	18
Kickapoo	(01)	11	04	05	01
Parkview	(03)	30	21	25	28
Republic	(01)	71	34	55	20
Rogersville	(01)	03	29	13	02
Willard	(01)	04	06	04	23
TOTAL	(14)	34	29	32	35

V

Average Reading Ability by Grade Level of Students Enrolled
in Auto Body at the Springfield Area Voc-Tech School

		Vocabulary	Comprehension	Total	Reading Rate
Central	(01)	9.2	6.6	7.5	15.0
Clever	(01)	8.6	12.8	10.7	11.3
Glendale	(04)	13.5	11.8	12.6	11.4
Hillcrest	(01)	10.9	-6.0	7.1	6.5
Kickapoo	(01)	7.9	6.0	-6.0	-6.0
Parkview	(03)	10.8	8.7	9.6	4.7
Republic	(01)	14.3	10.8	13.1	7.0
Rogersville	(01)	7.1	9.3	7.7	-6.0
Willard	(01)	7.3	6.3	-6.0	7.0
TOTAL	(14)	10.8	8.9	8.1	6.7

V

Frequency Rates for Students Enrolled
in Auto Body at the Springfield Area Voc-Tech School
by Percentile Rank

Vocabulary	Comprehension	Total	Reading Rate
01 - 1	03 - 1	04 - 1	01 - 1
03 - 1	04 - 1	05 - 1	02 - 1
04 - 1	05 - 1	09 - 1	10 - 1
11 - 1	06 - 1	10 - 2	18 - 1
18 - 1	08 - 1	13 - 1	20 - 1
19 - 1	12 - 1	21 - 1	23 - 2
40 - 2	15 - 1	24 - 1	28 - 1
43 - 1	29 - 1	39 - 1	34 - 1
46 - 1	34 - 1	45 - 1	46 - 1
63 - 1	44 - 1	55 - 1	50 - 1
67 - 1	47 - 1	59 - 1	66 - 1
71 - 1	59 - 1	67 - 1	87 - 1
85 - 1	69 - 1	81 - 1	88 - 1
	72 - 1		

V

Frequency Rates by Grade Level for Students Enrolled
in Auto Body at the Springfield Area Voc-Tech School

Vocabulary	Comprehension	Total	Reading Rate
7.1 - 1	-6.0 - 1	-6.0 - 2	-6.0 - 3
7.3 - 1	6.0 - 1	7.1 - 1	6.5 - 1
7.9 - 1	6.3 - 1	7.5 - 1	7.0 - 2
8.6 - 1	6.6 - 1	7.7 - 2	7.7 - 1
8.9 - 1	7.0 - 2	8.8 - 1	8.4 - 1
9.2 - 1	8.1 - 1	9.8 - 1	9.1 - 1
10.9 - 1	9.3 - 1	10.7 - 1	11.3 - 2
11.1 - 1	10.8 - 1	12.3 - 1	13.8 - 1
11.7 - 1	11.5 - 1	12.7 - 1	15.0 - 2
12.4 - 1	12.2 - 1	13.1 - 1	
13.5 - 1	12.8 - 1	13.8 - 1	
13.8 - 1	13.5 - 1	14.2 - 1	
14.3 - 1	14.1 - 1		
14.9 - 1			

Average Reading Ability of Students Enrolled
in Auto Mechanics at the Springfield Area Voc-Tech School
by Percentile Rank and School District

		Vocabulary	Comprehension	Total	Reading Rate
Ash Grove	(01)	37	19	24	71
Central	(01)	52	59	56	23
Glendale	(02)	40	53	40	65
Hillcrest	(04)	44	37	40	68
Kickapoo	(01)	49	24	34	11
Parkview	(04)	22	18	20	42
TOTAL	(13)	37	32	33	52

Average Reading Ability by Grade Level of Students Enrolled
in Auto Mechanics at the Springfield Area Voc-Tech School

		Vocabulary	Comprehension	Total	Reading Rate
Ash Grove	(01)	11.4	8.7	10.0	15.0
Central	(01)	12.0	12.8	12.5	7.0
Glendale	(02)	11.2	12.1	11.2	13.8
Hillcrest	(04)	11.7	10.6	11.1	13.9
Kickapoo	(01)	12.7	9.3	11.1	6.0
Parkview	(04)	9.3	8.2	5.6	10.4
TOTAL	(13)	10.9	10.0	9.4	11.7

V

Frequency Rates For Students Enrolled
in Auto Mechanics at the Springfield Area Voc-Tech School
by Percentile Rank

Vocabulary	Comprehension	Total	Reading Rate
01 - 1	04 - 1	02 - 1	11 - 1
07 - 1	05 - 2	05 - 1	15 - 1
13 - 1	19 - 1	07 - 1	18 - 1
18 - 1	23 - 1	24 - 1	23 - 1
21 - 1	24 - 1	28 - 1	46 - 1
37 - 1	28 - 1	33 - 2	60 - 1
40 - 1	34 - 1	34 - 1	63 - 1
49 - 1	39 - 1	43 - 1	66 - 2
52 - 1	40 - 1	46 - 1	71 - 1
58 - 2	59 - 1	56 - 1	72 - 1
63 - 1	69 - 1	65 - 1	76 - 1
65 - 1	72 - 1		86 - 1

V

Frequency Rates by Grade Level for Students Enrolled
in Auto Mechanics at the Springfield Area Voc-Tech School

Vocabulary	Comprehension	Total	Reading Rate
6.6 - 1	6.0 - 1	-6.0 - 1	6.0 - 1
8.1 - 1	6.6 - 2	6.8 - 1	6.5 - 2
8.6 - 1	8.7 - 2	7.1 - 1	7.0 - 1
9.2 - 1	9.3 - 1	10.0 - 1	11.3 - 1
9.6 - 1	10.0 - 2	10.4 - 1	13.4 - 1
11.4 - 1	11.5 - 1	10.9 - 2	13.8 - 3
11.7 - 1	12.2 - 1	11.1 - 2	15.0 - 3
12.0 - 1	12.8 - 1	11.5 - 1	15.3 - 1
12.7 - 3	13.5 - 1	12.5 - 1	
13.1 - 1	14.1 - 1	13.1 - 2	
13.9 - 1			

Average Reading Ability of Students Enrolled
in Electronics at the Springfield Area Voc-Tech School
by Percentile Rank and School District

		Vocabulary	Comprehension	Total	Reading Rate
Fair Grove	(01)	37	34	34	58
Glendale	(04)	59	34	39	49
Hillcrest	(02)	63	77	64	46
Parkview	(03)	82	66	80	90
Republic	(02)	90	46	79	70
Willard	(02)	61	59	59	33
TOTAL	(14)	68	52	62	59

Average Reading Ability by Grade Level of Students Enrolled
in Electronics at the Springfield Area Voc-Tech School

		Vocabulary	Comprehension	Total	Reading Rate
Fair Grove	(01)	11.4	10.8	11.1	13.0
Glendale	(04)	13.0	10.4	12.3	11.2
Hillcrest	(02)	13.9	14.4	13.6	11.3
Parkview	(03)	14.3	13.5	14.2	15.0
Republic	(02)	15.0	11.9	14.4	13.2
Willard	(02)	13.2	12.8	12.9	9.0
TOTAL	(14)	13.6	12.2	13.2	12.1

Frequency Rates for Students Enrolled
in Electronics at the Springfield Area Voc-Tech School
by Percentile Rank

Vocabulary	Comprehension	Total	Reading Rate
13 - 1	12 - 1	26 - 1	23 - 2
37 - 1	19 - 1	34 - 1	28 - 1
43 - 1	34 - 1	39 - 1	43 - 1
58 - 1	39 - 3	50 - 1	46 - 3
60 - 1	44 - 1	54 - 1	58 - 1
66 - 1	53 - 1	63 - 1	63 - 1
68 - 1	67 - 1	64 - 1	79 - 1
76 - 1	69 - 1	66 - 1	81 - 1
78 - 1	72 - 1	67 - 1	93 - 1
79 - 1	78 - 1	70 - 1	95 - 1
84 - 1	82 - 1	78 - 1	96 - 1
91 - 1	86 - 1	79 - 1	
96 - 2		87 - 1	
		95 - 1	

Frequency Rates by Grade Level for Students Enrolled
in Electronics at the Springfield Area Voc-Tech School

Vocabulary	Comprehension	Total	Reading Rate
8.6 - 1	7.5 - 1	10.0 - 1	7.7 - 2
11.4 - 1	8.7 - 1	11.1 - 1	8.4 - 1
12.0 - 1	10.8 - 1	11.8 - 1	10.3 - 1
12.9 - 1	11.5 - 3	12.7 - 1	11.3 - 3
13.5 - 1	12.2 - 2	12.8 - 1	13.0 - 1
14.0 - 1	13.5 - 1	13.1 - 1	13.8 - 1
14.2 - 1	13.8 - 1	13.6 - 2	15.0 - 5
14.3 - 1	14.1 - 2	13.8 - 1	
14.6 - 1	14.7 - 2	13.9 - 1	
14.9 - 1		14.0 - 1	
15.0 - 4		14.5 - 1	
		14.9 - 1	
		15.0 - 1	

Average Reading Ability of Students Enrolled
in Heating and Air-conditioning at the Springfield Area Voc-Tech School
by Percentile Rank and School District

		Vocabulary	Comprehension	Total	Reading Rate
Central	(04)	33	39	35	46
Hillcrest	(02)	13	34	23	13
Kickapoo	(03)	11	27	17	52
Marshfield	(01)	54	72	62	46
Ozark	(01)	07	50	28	20
<u>Strafford</u>	<u>(01)</u>	<u>10</u>	<u>24</u>	<u>16</u>	<u>68</u>
TOTAL	(12)	22	38	29	42

Average Reading Ability by Grade Level of Students Enrolled
in Heating and Air-conditioning at the Springfield Area Voc-Tech School

		Vocabulary	Comprehension	Total	Reading Rate
Central	(04)	10.5	10.9	7.1	10.9
Hillcrest	(02)	8.3	10.4	9.3	.5
Kickapoo	(03)	7.9	9.2	8.1	8.1
Marshfield	(01)	13.1	14.1	13.5	11.3
Ozark	(01)	8.1	12.8	10.4	7.0
<u>Strafford</u>	<u>(01)</u>	<u>8.3</u>	<u>9.3</u>	<u>8.8</u>	<u>14.6</u>
TOTAL	(12)	9.3	10.7	9.8	8.5

Frequency Rates for Students Enrolled
in Heating and Air-conditioning at the Springfield Area Voc-Tech School
by Percentile Rank

Vocabulary	Comprehension	Total	Reading Rate
01 - 1	08 - 1	05 - 1	02 - 1
02 - 1	12 - 1	09 - 1	10 - 1
07 - 1	23 - 1	10 - 1	20 - 1
10 - 2	24 - 1	16 - 1	23 - 1
16 - 2	28 - 1	18 - 1	31 - 1
22 - 1	34 - 1	27 - 1	34 - 1
29 - 1	40 - 1	28 - 1	46 - 1
37 - 1	47 - 1	34 - 1	58 - 1
54 - 1	50 - 1	37 - 1	61 - 1
56 - 1	55 - 1	41 - 1	68 - 1
	59 - 1	56 - 1	72 - 1
	72 - 1	62 - 1	74 - 1

Frequency Rates by Grade Level for Students Enrolled
in Heating and Air-conditioning at the Springfield Area Voc-Tech School

Vocabulary	Comprehension	Total	Reading Rate
7.0 - 1	6.6 - 1	6.6 - 1	-6.0 - 2
7.1 - 1	7.5 - 1	6.9 - 1	7.0 - 2
8.1 - 1	8.7 - 1	7.1 - 1	8.4 - 1
8.3 - 4	9.3 - 1	8.8 - 1	9.1 - 1
8.9 - 1	10.0 - 1	9.1 - 1	11.3 - 1
9.6 - 1	10.8 - 2	9.5 - 1	13.0 - 2
11.4 - 1	11.5 - 1	10.4 - 1	14.6 - 1
13.1 - 1	12.8 - 2	10.6 - 1	15.0 - 1
13.3 - 1	13.2 - 1	10.9 - 1	15.3 - 1
	14.1 - 1	11.1 - 1	
		13.1 - 1	
		13.5 - 1	

Average Reading Ability of Students Enrolled
in LPN at the Springfield Area Voc-Tech School
by Percentile Rank

	Vocabulary	Comprehension	Total	Reading Rate
Springfield (28)	60	38	50	59

Average Reading Ability by Grade Level of Students Enrolled
in LPN at the Springfield Area Voc-Tech School

	Vocabulary	Comprehension	Total	Reading Rate
Springfield (28)	14.3	11.8	13.4	13.2

Frequency Rates for Students Enrolled
in LPN at the Springfield Area Voc-Tech School
by Percentile Rank

Vocabulary	Comprehension	Total	Reading Rate
22 - 1	02 - 1	07 - 1	05 - 1
23 - 1	03 - 1	17 - 1	11 - 1
24 - 1	04 - 1	18 - 3	27 - 1
25 - 1	06 - 1	25 - 2	32 - 1
30 - 1	11 - 2	27 - 1	34 - 2
40 - 1	12 - 1	32 - 1	42 - 1
41 - 1	22 - 2	35 - 2	46 - 1
43 - 1	28 - 1	40 - 1	49 - 2
44 - 1	29 - 2	47 - 1	58 - 2
46 - 1	34 - 1	49 - 1	61 - 1
52 - 1	35 - 3	53 - 1	62 - 2
57 - 3	38 - 1	54 - 1	66 - 3
59 - 1	54 - 5	55 - 1	70 - 2
61 - 1	60 - 1	58 - 2	77 - 1
63 - 1	66 - 3	62 - 2	79 - 1
67 - 1	85 - 2	75 - 2	84 - 1
69 - 1		80 - 1	86 - 2
76 - 2		84 - 1	89 - 2
81 - 1		90 - 1	94 - 1
83 - 1		93 - 1	
89 - 1		98 - 1	
90 - 1			
93 - 1			
99 - 2			

Frequency Rates by Grade Level for Students Enrolled
in LPN at the Springfield Area Voc-Tech School

Vocabulary	Comprehension	Total	Reading Rate
11.7 - 2	6.3 - 1	8.9 - 1	-6.0 - 1
12.0 - 1	6.6 - 1	10.9 - 1	7.7 - 1
13.3 - 1	7.5 - 1	11.3 - 1	9.1 - 1
13.6 - 1	8.1 - 1	11.8 - 1	10.3 - 1
13.8 - 2	8.7 - 1	12.0 - 1	11.3 - 1
14.3 - 3	10.0 - 1	12.5 - 2	12.3 - 1
14.4 - 2	10.8 - 3	12.6 - 1	13.0 - 1
14.5 - 3	11.5 - 2	13.0 - 1	13.8 - 3
14.6 - 1	12.2 - 4	13.1 - 1	15.0 - 16
14.8 - 1	12.8 - 2	13.4 - 1	15.3 - 2
14.9 - 2	13.5 - 4	13.5 - 2	
15.0 - 9	13.8 - 1	13.6 - 1	
	14.1 - 4	13.7 - 1	
	15.0 - 2	13.8 - 1	
		13.9 - 2	
		14.0 - 2	
		14.5 - 1	
		14.9 - 2	
		15.0 - 5	

WEST PLAINS

Average Reading Scores by %ile rank
of students enrolled in West Plains Area Voc-Tech School

	AGRI. (19)	AUTO BODY (13)	AUTO MECH. (13)	ELECT. (12)	LPN (21)	AVERAGE (78)
VOCABULARY	48	37	34	39	66	45
COMPREHENSION	41	34	42	41	33	38
TOTAL	42	34	38	39	54	41
READING RATE	49	03	33	45	37	33

Average Reading Scores by Grade Level
of students enrolled in West Plains Area Voc-Tech School

	AGRI. (19)	AUTO BODY (13)	AUTO MECH. (13)	ELECT. (12)	LPN (21)	AVERAGE (78)
VOCABULARY	10.9	10.9	10.5	10.7	14.4	11.7
COMPREHENSION	10.0	9.2	10.9	10.6	11.5	10.5
TOTAL	10.4	10.2	10.6	10.6	13.5	11.3
READING RATE	8.8	4.5	6.2	9.5	9.7	8.0

Average Reading Ability of Students Enrolled
in Agriculture at the West Plains Area Voc-Tech School
by Percentile Rank and School District

		Vocabulary	Comprehension	Total	Reading Rate
Caulfield	(01)	02	55	24	22
West Plains	(18)	50	40	43	51
Total	(19)	48	41	42	49

Average Reading Ability by Grade Level of Students Enrolled
in Agriculture at the West Plains Area Voc-Tech School

		Vocabulary	Comprehension	Total	Reading Rate
Caulfield	(01)	6.8	11.5	8.5	6.5
West Plains	(18)	11.1	10.0	10.5	8.9
TOTAL	(19)	10.9	10.0	10.4	8.8

Frequency Rates for Students Enrolled
in Agriculture at the West Plains Area Voc-Tech School
by Percentile Rank

Vocabulary	Comprehension	Total	Reading Rate
02 - 1	11 - 2	15 - 2	07 - 1
09 - 1	15 - 2	18 - 1	13 - 2
16 - 1	19 - 1	21 - 1	18 - 1
23 - 1	23 - 1	24 - 3	22 - 2
29 - 2	24 - 1	30 - 1	32 - 1
30 - 1	30 - 1	31 - 1	43 - 3
34 - 2	34 - 1	37 - 1	60 - 2
49 - 1	35 - 1	39 - 1	65 - 1
52 - 1	47 - 1	45 - 1	77 - 1
58 - 2	53 - 1	51 - 2	79 - 2
60 - 1	55 - 3	54 - 1	84 - 2
70 - 1	61 - 1	61 - 1	93 - 1
81 - 1	72 - 1	86 - 1	
85 - 1	77 - 1	88 - 1	
92 - 1	84 - 1	89 - 1	
93 - 1			

Frequency Rates by Grade Level for Students Enrolled
in Agriculture at the West Plains Area Voc-Tech School

6.8 - 1	6.6 - 2	7.3 - 2	-6.0 - 3
7.5 - 1	7.0 - 2	7.7 - 1	6.5 - 3
7.9 - 1	7.5 - 1	8.5 - 2	7.7 - 1
8.3 - 2	8.1 - 2	9.1 - 2	9.1 - 1
8.9 - 1	8.7 - 1	9.8 - 2	10.3 - 2
9.2 - 1	9.3 - 1	10.4 - 1	12.3 - 2
9.6 - 2	10.0 - 1	10.9 - 1	13.0 - 1
11.1 - 1	11.5 - 4	11.3 - 1	15.0 - 6
11.7 - 3	12.2 - 2	12.0 - 2	
12.9 - 2	13.2 - 1	12.3 - 1	
13.9 - 1	13.5 - 1	14.0 - 1	
14.3 - 1	14.1 - 1	14.2 - 1	
15.0 - 2		14.4 - 1	

Average Reading Ability of Students Enrolled
in Auto Body at the West Plains Area Voc-Tech School
by Percentile Rank

		Vocabulary	Comprehension	Total	Reading Rate
West Plains	(13)	37	34	34	03

Average Reading Ability by Grade Level of Students Enrolled
in Auto Body at the West Plains Area Voc-Tech School

		Vocabulary	Comprehension	Total	Reading Rate
West Plains	(13)	10.9	9.2	10.2	4.5

Frequency Rates for Students Enrolled
in Auto Body at the West Plains Area Voc-Tech School
by Percentile Rank

Vocabulary	Comprehension	Total	Reading Rate
05 - 1	05 - 1	04 - 1	01 - 4
13 - 2	08 - 1	11 - 1	02 - 3
26 - 2	12 - 1	15 - 1	03 - 2
29 - 1	15 - 2	18 - 1	04 - 3
32 - 1	23 - 1	20 - 1	07 - 1
37 - 1	34 - 1	23 - 1	
42 - 1	40 - 1	34 - 1	
46 - 1	47 - 1	35 - 1	
51 - 1	50 - 1	39 - 1	
75 - 1	59 - 1	46 - 1	
90 - 1	64 - 1	50 - 1	
	74 - 1	62 - 1	
		86 - 1	

Frequency Rates by Grade Level for Students Enrolled
in Auto Body at the West Plains Area Voc-Tech School

Vocabulary	Comprehension	Total	Reading Rate
7.7 - 1	6.6 - 1	6.4 - 1	-6.0 - 4
8.1 - 2	7.0 - 2	7.9 - 2	7.0 - 2
9.2 - 2	7.5 - 2	8.5 - 1	8.4 - 2
9.6 - 1	8.7 - 1	8.6 - 1	8.6 - 1
10.1 - 1	10.8 - 2	8.9 - 1	10.4 - 3
11.4 - 2	11.5 - 1	10.4 - 1	12.3 - 1
12.9 - 1	12.8 - 2	10.9 - 1	
14.0 - 1	13.2 - 1	11.1 - 1	
15.0 - 2	13.8 - 1	11.5 - 1	
		12.8 - 1	
		12.9 - 1	
		14.7 - 1	

Average Reading Ability of Students Enrolled
in Auto Mechanics at the West Plains Area Voc-Tech School
by Percentile Rank

		Vocabulary	Comprehension	Total	Reading Rate
West Plains	(13)	34	42	38	33

Average Reading Ability by Grade Level of Students Enrolled
in Auto Mechanics at the West Plains Area Voc-Tech School

		Vocabulary	Comprehension	Total	Reading Rate
West Plains	(13)	10.5	10.9	10.6	6.2

Frequency Rates for Students Enrolled
in Auto Mechanics at the West Plains Area Voc-Tech School
by Percentile Rank

Vocabulary	Comprehension	Total	Reading Rate
06 - 1	06 - 1	06 - 1	04 - 2
07 - 1	15 - 2	09 - 1	07 - 1
11 - 1	24 - 1	10 - 1	15 - 1
16 - 1	29 - 1	23 - 1	18 - 1
19 - 1	34 - 1	24 - 1	23 - 1
24 - 1	40 - 1	33 - 1	28 - 1
29 - 1	44 - 1	39 - 1	31 - 1
36 - 1	47 - 1	41 - 1	37 - 1
40 - 1	69 - 2	49 - 1	43 - 1
46 - 1	72 - 1	51 - 1	46 - 1
58 - 1	86 - 1	52 - 1	78 - 1
68 - 1		77 - 1	92 - 1
82 - 1		78 - 1	

Frequency Rates by Grade Level for Students Enrolled
in Auto Mechanics at the West Plains Area Voc-Tech School

Vocabulary	Comprehension	Total	Reading Rate
7.5 - 1	6.3 - 1	6.2 - 1	-6.0 - 3
7.9 - 2	7.5 - 1	6.9 - 1	6.5 - 2
8.3 - 1	8.1 - 1	7.7 - 1	7.7 - 1
8.6 - 1	9.3 - 2	8.9 - 1	8.4 - 2
9.6 - 1	10.0 - 1	9.1 - 1	9.1 - 1
10.1 - 1	10.5 - 1	10.7 - 1	10.3 - 1
10.5 - 1	11.5 - 1	10.9 - 2	11.3 - 1
10.9 - 1	12.2 - 1	12.0 - 1	15.0 - 2
12.4 - 1	13.5 - 2	12.7 - 1	
13.5 - 1	14.1 - 1	12.9 - 1	
14.2 - 1	15.0 - 1	14.0 - 1	
14.6 - 1		14.4 - 1	

Average Reading Ability of Students Enrolled
in Electronics at the West Plains Area Voc-Tech School
by Percentile Rank and School District

		Vocabulary	Comprehension	Total	Reading Rate
West Plains	(11)	39	41	39	47
Willow Springs	(01)	43	40	41	23
Total	(12)	39	41	39	45

Average Reading Ability by Grade Level of Students Enrolled
in Electronics at the West Plains Area Voc-Tech School

		Vocabulary	Comprehension	Total	Reading Rate
West Plains	(11)	10.7	10.6	10.6	9.8
Willow Springs	(01)	11.1	10.8	10.9	7.0
Total	(12)	10.7	10.6	10.6	9.5

Frequency Rates for Students Enrolled
in Electronics at the West Plains Area Voc-Tech School
by Percentile Rank

Vocabulary	Comprehension	Total	Reading Rate
09 - 1	06 - 1	07 - 1	03 - 1
16 - 1	15 - 1	20 - 2	14 - 1
19 - 1	23 - 3	23 - 1	18 - 1
26 - 1	40 - 2	37 - 2	23 - 1
32 - 1	53 - 1	41 - 1	31 - 1
40 - 1	59 - 1	50 - 1	50 - 1
43 - 1	64 - 1	53 - 2	56 - 1
52 - 2	69 - 1	63 - 1	61 - 3
55 - 1	74 - 1	69 - 1	79 - 1
63 - 1			82 - 1
65 - 1			

Frequency Rates by Grade Level for Students Enrolled
in Electronics at the West Plains Area Voc-Tech School

Vocabulary	Comprehension	Total	Reading Rate
7.7 - 1	6.3 - 1	6.6 - 1	-6.0 - 1
8.3 - 1	7.5 - 1	8.6 - 2	6.0 - 1
8.6 - 1	8.7 - 2	8.9 - 1	6.5 - 1
9.2 - 1	9.3 - 1	10.6 - 2	7.0 - 1
10.1 - 1	10.8 - 2	10.9 - 1	8.4 - 1
10.9 - 1	12.2 - 1	11.8 - 1	11.3 - 1
11.1 - 1	12.8 - 1	12.1 - 2	12.3 - 1
12.0 - 2	13.2 - 1	13.0 - 1	13.0 - 3
12.4 - 1	13.5 - 1	13.3 - 1	15.0 - 2
13.1 - 1	13.8 - 1		
13.3 - 1			

Average Reading Ability of Students Enrolled
in LPN at the West Plains Area Voc-Tech School
by Percentile Rank

		Vocabulary	Comprehension	Total	Reading Rate
West Plains	(21)	66	33	54	37

Average Reading Ability by Grade Level of Students Enrolled
in LPN at the West Plains Area Voc-Tech School

		Vocabulary	Comprehension	Total	Reading Rate
West Plains	(21)	14.4	11.5	13.5	9.7

Frequency Rates for Students Enrolled
in LPN at the West Plains Area Voc-Tech School
by Percentile Rank

Vocabulary	Comprehension	Total	Reading Rate
28 - 1	04 - 2	18 - 1	01 - 2
31 - 1	08 - 2	22 - 1	08 - 1
39 - 2	14 - 1	27 - 1	09 - 2
46 - 1	17 - 1	29 - 2	12 - 1
51 - 2	22 - 1	36 - 1	22 - 1
59 - 1	28 - 2	43 - 1	27 - 3
61 - 1	35 - 4	46 - 2	32 - 2
67 - 2	41 - 1	54 - 1	38 - 1
74 - 1	47 - 3	55 - 2	43 - 2
76 - 1	54 - 1	57 - 1	54 - 1
77 - 1	60 - 1	62 - 1	62 - 1
82 - 1	66 - 2	63 - 1	70 - 1
84 - 2		66 - 1	79 - 1
90 - 1		81 - 1	90 - 1
91 - 1		85 - 1	94 - 1
94 - 1		86 - 1	
96 - 1		90 - 1	
		93 - 1	

Frequency Rates by Grade Level for Students Enrolled
in LPN at the West Plains Area Voc-Tech School

Vocabulary	Comprehension	Total	Reading Rate
12.4 - 1	7.0 - 2	10.9 - 1	-6.0 - 2
12.7 - 1	8.1 - 2	11.5 - 1	6.2 - 1
13.3 - 2	9.3 - 1	12.0 - 1	6.5 - 2
13.8 - 1	10.0 - 1	12.3 - 2	7.0 - 1
14.0 - 2	10.8 - 1	12.9 - 1	9.1 - 1
14.4 - 1	11.5 - 2	13.2 - 1	10.3 - 3
14.5 - 1	12.2 - 3	13.3 - 2	11.3 - 2
14.8 - 2	12.8 - 1	13.7 - 1	12.3 - 1
15.0 - 10	13.2 - 3	13.8 - 2	13.0 - 2
	13.5 - 1	13.9 - 1	14.6 - 1
	13.8 - 1	14.0 - 1	15.0 - 5
	14.1 - 2	14.1 - 1	
	14.4 - 1	14.5 - 1	
		15.0 - 5	

APPENDIX D

The three area vocational-technological schools listed in this study and the sending schools. Courses and teachers are also listed by area school.

AREA SCHOOL

Nevada R-5
Jerry Whitson, Director
Nevada, Missouri 64772

Springfield R-XII
940 N. Jefferson
David Berryman, Director
Springfield, Missouri 65802

SENDING SCHOOL

Bronaugh R-VII
Jerry Sparks, Supt.
Edward J. Moran, Prin.
Bronaugh, Missouri 64728

El Dorado Springs R-II
Box 191
Billy M. Kelsay, Supt.
Larry R. Kopp, Prin.
El Dorado Springs, Missouri 64744

Hume R-VIII
P. O. Box 402
Roy W. True, Supt.
Ronald M. Hannon, Prin.
Hume, Missouri 64752

Nevada R-V
John L. Carmichael, Supt.
William E. Wynn, Jr., Prin.
Nevada, Missouri 64772

Rich Hill R-IV
110 W. Olive
Jesse W. Teel, Supt.
Roy Glynn, Prin.
Rich Hill, Missouri 64779

Schell City R-I
Eldon Powell, Supt.
Nancy Fagan, Prin.
Schell City, Missouri 64783

Sheldon R-VIII
P. O. Box 68
Wayne Rumans, Supt.
Ralph Sharp, Prin.
Sheldon, Missouri 64784

Walker R-IV
Herbert Sisco, Supt.
Michael Mauzy, Prin.
Walker, Missouri 64790

Ash Grove R-IV
P. O. Box 218
B. B. McDonald, Supt.
Eugene Hill, Prin.
Ash Grove, Missouri 65604

AREA SCHOOL

SENDING SCHOOL

Central Senior High
Dr. Joe E. Kuklenski, Supt.
Charles Espy, Prin.
Springfield, Missouri 65802

Clever R-V
George Curry, Supt.
Garry Keltner, Prin.
Clever, Missouri 65631

Fair Grove R-X
Robert C. Thomas, Supt.
Dean O. Crayton, Prin.
Fair Grove, Missouri 65648

Glendale Senior High
Dr. Joe E. Kuklenski, Supt.
James E. Ford, Prin.
Springfield, Missouri 65802

Hillcrest Senior High
Dr. Joe E. Kuklenski, Supt.
William B. Gist, Prin.
Springfield, Missouri 65802

Kickapoo Senior High
Dr. Joe E. Kuklenski, Supt.
Curtis Wilkerson, Prin.
Springfield, Missouri 65802

Marshfield R-I
R. A. Barr, Supt.
Bill V. Walker, Prin.
Marshfield, Missouri 65706

Ozark R-VI
Jordan D. Needham, Supt.
Scott Mills, Prin.
Ozark, Missouri 65721

Parkview Senior High
Dr. Joe E. Kuklenski, Supt.
Fred H. Balden, Prin.
Springfield, Missouri 65802

Republic R-III
518 N. Hampton
William Schatz, Supt.
Donald Farwell, Prin.
Republic, Missouri 65738

AREA SCHOOL

West Plains R-VII
Box 87
M. E. Brown, Director
West Plains, Missouri 65775

SENDING SCHOOL

Greene County R-VIII
Route 4
Herbert E. Luttrull, Supt.
Charles Mason, Prin.
Rogersville, Missouri 65742

Springfield R-XII
940 N. Jefferson
Dr. Joe Kuklenski, Supt.
Springfield, Missouri 65802

Strafford R-VI
P. O. Box 97
Fred James, Supt.
Robert Max Evans, Prin.
Strafford, Missouri 65757

Willard R-II
Dr. Lee J. Orth, Supt.
Hershel Bledsoe, Prin.
Willard, Missouri 65781

Caulfield
Caulfield, Missouri 65626

West Plains R-VII
P. O. Box 87
302 W. Cleveland
Harold R. Smith, Supt.
Ronald R. Crain, Prin.
West Plains, Missouri 65775

Willow Springs R-IV
Donald K. Heard, Supt.
Arthur M. Hedges, Jr., Prin.
Willow Springs, Missouri 65793

COURSES AND TEACHERS
BY AREA SCHOOL

AREA SCHOOL

COURSES AND TEACHERS

Nevada

Agriculture - Mr. J. D. Riddle
Auto Body - Mr. Schlyer
Auto Mechanics - Mr. Burns
Electronics - Mr. Dale E. Postel
Heating & Air Cond. - Mr. Shaw
LPN - Mrs. Shirley

Springfield

Agriculture - Dr. Haskins
Auto Body - Mr. P. Brock
Auto Mechanics - Mr. Freeze
Electronics - Mr. Hoss
Heating & Air Cond. - R. E. White
LPN - Mrs. Groves

West Plains

Agriculture - Mr. Rolla Fraley
Auto Body - Mr. Gilbert
Auto Mechanics - Mr. Halford
Electronics - Mr. Cozort
LPN - Mrs. Schmutzler

APPENDIX E

FINAL GRADES OF STUDENTS TESTED

The final grades are listed by technology area and grade level attained for the students tested in this study. Percentiles are also included in the table.

TABLE XI

Frequency of Final Grades and Percentiles for all
Students Enrolled and Tested by Technologies

AGRICULTURE

Grade Levels	A		B		C		D		Drop		Total
10	3	7%	16	36%	16	36%	7	16%	2	5%	44
11	2	21%	5	58%	2	21%	-	-	-	-	9
TOTALS	5	9%	21	40%	18	34%	7	13%	2	4%	53

AUTO BODY

Grade Levels	A		B		C		D		Drop		Total
11	-	-	8	35%	14	61%	1	4%	-	-	23
12	5	39%	3	23%	2	15%	1	8%	2	15%	13
TOTALS	5	14%	11	31%	16	44%	2	6%	2	6%	36

AUTO MECHANICS

Grade Levels	A		B		C		D		Drop		Total
11	3	15%	8	40%	8	40%	-	-	1	5%	20
12	5	36%	6	43%	3	21%	-	-	-	-	14
TOTALS	8	22%	14	41%	11	32%	-	-	1	3%	34

ELECTRONICS

Grade Levels	A		B		C		D		Drop		Total
11	3	13%	12	50%	7	29%	2	8%	-	-	24
12	4	29%	6	43%	3	21%	-	-	1	7%	14
TOTALS	7	19%	18	47%	10	26%	2	5%	1	3%	38

TABLE XI.

Frequency of Final Grades and Percentiles for all
Students Enrolled and Tested by Technologies

HEATING & AIR CONDITIONING

Grade Levels	A		B		C		D		Drop		Total
11	1	8%	7	59%	4	33%	-	-	-	-	12
12	2	13%	7	47%	5	33%	-	-	1	7%	15
TOTALS	3	11%	14	52%	9	33%	-	-	1	4%	27

LPN

Grade Level	A		B		C		D		Drop		Total
Above 12	20	25%	31	39%	22	27%	5	6%	1	3%	79

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NEVADA
FINAL GRADES FOR AGRICULTURE

Grade Level	A	B	C	D	Drop
10th	1	8	8	4	-
11th	1	3	1	-	-

FINAL GRADES FOR AUTO BODY

Grade Level	A	B	C	D	Drop
11th	-	2	3	1	-
12th	-	1	-	-	2

FINAL GRADES FOR AUTO MECHANICS

Grade Level	A	B	C	D	Drop
11th	-	4	3	-	-
12th	1	-	-	-	-

FINAL GRADES FOR ELECTRONICS

Grade Level	A	B	C	D	Drop
11th	3	2	3	-	-
12th	2	1	1	-	-

FINAL GRADES FOR HEATING AND AIR CONDITIONING

Grade Level	A	B	C	D	Drop
11th	1	3	3	-	-
12th	1	5	1	-	-

NEVADA

FINAL GRADES FOR LPN

Grade Level	A	B	C	D	Drop
Above 12th	4	10	15	1	-

SPRINGFIELD
FINAL GRADES FOR AGRICULTURE

Grade Level	A	B	C	D	Drop
10th	-	2	4	1	1

FINAL GRADES FOR AUTO BODY

Grade Level	A	B	C	D	Drop
11th	-	4	4	-	-
12th	3	1	2	-	-

FINAL GRADES FOR AUTO MECHANICS

Grade Level	A	B	C	D	Drop
11th	3	1	-	-	1
12th	4	3	1	-	-

FINAL GRADES FOR ELECTRONICS

Grade Level	A	B	C	D	Drop
11th	-	1	1	2	-
12th	2	5	2	-	1

FINAL GRADES FOR HEATING AND AIR CONDITIONING

Grade Level	A	B	C	D	Drop
11th	-	1	1	-	-
12th	1	2	4	-	-

SPRINGFIELD
FINAL GRADES FOR LPN

Grade Level	A	B	C	D	Drop
Above 12th	7	19	2	-	-

WEST PLAINS
FINAL GRADES FOR AGRICULTURE

Grade Level	A	B	C	D	Drop
10th	2	6	4	2	1
11th	1	2	1	-	-

FINAL GRADES FOR AUTO BODY

Grade Level	A	B	C	D	Drop
11th	-	2	7	-	-
12th	2	1	-	1	-

FINAL GRADES FOR AUTO MECHANICS

Grade Level	A	B	C	D	Drop
11th	-	3	5	-	-
12th	-	3	2	-	-

FINAL GRADES FOR ELECTRONICS

Grade Level	A	B	C	D	Drop
11th	-	9	3	-	-

FINAL GRADES FOR LPN

Grade Level	A	B	C	D	Drop
Above 12th	9	2	5	4	2

APPENDIX F

BIBLIOGRAPHY OF AREA VOC-TECH SCHOOLS TEXTBOOKS

This appendix gives a bibliography of all the textbooks used by the area vocational technical schools of southwest Missouri selected for investigation in this study.

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